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ABSTRACT

The focus of this volume is upon the changes that are needed in teacher education programs to address the process of mainstreaming handicapped children. The authors of the papers presented are associated with Deans' Grants Projects. The first section presents an overview of past and present special education services and advances a philosophy for the future of teacher education in general. In the second section, the papers examine strategies for change and their application to Deans' Grants Projects. The third section presents case studies of the evolution of three Deans' Grants Projects. The fourth section deals with specific project practices that may hold promise for the successful implementation of change in higher education. The fifth section examines several topics that intersect with the foci of all Deans' Grants Projects. Sections six and seven consist of one paper each. In the former, the author presents a commentary on the challenges facing education in general in today's society; in the latter, there is presented initially an historical analysis of different approaches to serving children with special needs and, then, a synthesis of the efforts, problems, and implications of the Deans' Grants Projects to date. (JD)

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Teacher Education: Renegotiating Roles for Mainstreaming

ED159156

Editors:
Judith K. Grosenick
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Teacher Education: Renegotiating Roles for Mainstreaming

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Minneapolis, Minnesota
1978

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Foreword

The legislative enactments mandating the public schools to follow certain new principles in the delivery of educational services to children with special learning needs indirectly are necessitating changes in the conceptualization of teacher-preparation programs. To help some colleges of education to explore the processes through which such changes can be best achieved, the Bureau of Education for the Handicapped initiated, in 1975, the program of Deans' Grants Projects.

This collection of papers on the Deans' Grants Projects documents the efforts of some host colleges of education to revise the philosophy, content, and structure of their teacher-education programs. In every paper, the focus is on particular aspects of change under the unique conditions of the particular institution. Successes and problems are discussed with equal candor. Thus, other colleges of education that are instituting procedures to revise the education of pre-service teachers to meet the new needs of public schools may discover among the various papers suggestions that are specifically appropriate for them or, at least, that provide a view of the many different ways in which change can be initiated and carried out.

As part of the technical assistance system backing up the Deans' Grants Projects, the National Support Systems Project is proud to have participated in the production of this volume; and it is particularly gratifying to be able to present the volume as a cooperative dissemination effort with the Teacher Education Division of the Council for Exceptional Children.

Maynard C. Reynolds, *Director*
National Support Systems Project
University of Minnesota

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Deans' Grants Projects; Supporting Innovations in Teacher-Education Programs

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Introduction

7

A Historical Perspective

In 1974, the Bureau of Education for the Handicapped (BEH), U.S. Office of Education, invited deans of colleges, schools, divisions, and departments of education across the nation to submit proposals for projects that would investigate alternative solutions to the various problems emanating from the need for change in teacher-preparation programs.

The BEH initiative resulted from the growing demand for support to prepare teachers at the elementary and secondary levels to accommodate handicapped pupils in regular classrooms. The need for this reorientation in training is not limited to future classroom teachers but includes other education personnel, such as, principals, supervisors, counselors, and superintendents, for whom specialized training is indicated to increase their knowledge of and skills in dealing with the ever-growing number of handicapped children in the mainstream of education.

Until 1974, the new demands on regular education personnel were met primarily through the limited financial support of inservice activities and the establishment of statewide study committees, composed of representatives of institutions of higher education and state and local education agencies, for the purpose of reviewing the certification requirements for regular educators. The results of these activities pointed to the immediate need to stimulate, in any way possible, changes in the basic concepts of undergraduate and graduate programs that prepared educators to work in regular classroom situations. Therefore, BEH invited institutions of higher education to submit proposals that would lead to the eventual reconceptualization of teacher-preparation curricula. This BEH initiative came at a time when the American education community had begun to realize that a change in the preparation of teachers was essential if educators were to meet the challenge of the 1980s and, at the same time, to maintain their professional status. (See the report, *Educating a Profession*, by the Bicentennial Commission on Education for the Profession of Teaching, American Association of Colleges for Teacher Education, 1976.)

Introduction

The original BEH invitation for the submission of proposals under the category of Deans' Grants (Summer 1974), recommended the inclusion of three basic parameters:

1. The key to the success of a Dean's Grant is that the person in charge has the authority, responsibility, and decision-making capability to bring about change. Therefore, the dean him/herself must serve as the project director. In special cases, however, a person in a position of equal authority and responsibility also could be considered to direct the project.
2. The project must contain a plan for reconceptualizing the teacher-preparation program, that is, a proposal for developing and conceptualizing new ways for the preparation of the teachers of tomorrow. The plan should not only be innovative but, also, should respond to the needs of the local and state education agencies.
3. Special education faculty members should be active but not sole participants in and/or contributors to a Dean's Grant Project. Although the knowledge and skills of these faculty members are of significant value, in order to achieve a comprehensive impact all areas within the school or college of education must be involved on an equal basis. Only when the entire faculty participates can a real reconceptualization of teacher preparation take place. Furthermore, it is considered crucial that significant contributions be made by other professional disciplines that are delivering services to handicapped people, such as medicine, psychiatry, speech and hearing, psychology, social services, physical and occupational therapy, and other health-related professions. Only with a multidisciplinary approach to planning and development will institutions of higher education be able to prepare teachers in the future who have a knowledge and understanding of how handicapped and nonhandicapped children grow and learn.

Originally, BEH anticipated that the Deans' Grants Projects would be funded at limited levels that would provide for an administrative assistant or project coordinator, secretarial support, consultants, and some travel for project staff. The procedures developed for Deans' Grants applications, evaluation, and program approval were consistent with those used with all other proposals submitted to the Division of Personnel Preparation, BEH, including the option to apply for renewal upon conclusion of the three-year program approval period provided the need for continued support exists.

In any planning-developmental project and, particularly, in the case of the Deans' Grants, no formula insures success; activities and objectives can be defined only by the persons at the given institution of higher education. The federal role is to stimulate and activitate the process for change, to assist temporarily during the transitional period in order to prevent any interruption in the preparation of teachers for all children. As in most of its activities, BEH's role in the Deans' Grants is purely catalytic. The success of a Dean's Grant Project relies solely on the forces generated within the institution and their resultant impact on the system.

Current Status

The response from the field to the concept of the Deans' Grants was impressive. Initially, about 60 projects were approved and funded. Currently (1977-78), BEH is supporting 81 Deans' Grants Projects (see list of projects at the back of the book). Since the passage of Public Law 94-142, the Education for all Handicapped Children Act, the response has increased; BEH allocated $3.2 million for Fiscal Year 1977 and plans to increase this amount are being considered.

An examination of the currently funded projects reveals a great diversity in geographical locations, institutional size, type of personnel involved, and activities undertaken. For example, at the present time, the Deans' Grants Projects are operating in 36 states, the District of Columbia, and Puerto Rico. The majority of the projects are based in urban sites; however, at least one-third are located in colleges in rural settings. The size of the institutions receiving the Deans' Grants range from large universities with enrollments exceeding 70,000 to smaller colleges that may prepare 20-30 teachers annually.

The intent of BEH was to provide small amounts of financial support to be used as catalysts for planning and development. Therefore, grant awards range from $12,000 to $95,000 with a median about $40,000. As originally intended, these monies are being used to provide full or partial support for only a limited number (1-3) of project personnel. Administratively, some projects are directly managed by the dean while in others these responsibilities have been delegated to a faculty member who functions as project coordinator. In these instances, the majority of coordinators hold academic rank on a regular appointment in the area of regular or regular/special education.

Most of the feedback that BEH received during the first two years was enthusiastic. However, each project reported that to bring about the needed change — to reconceptualize the teacher-preparation curriculum as one in which the learning needs of handicapped children are an integral part — is a much more difficult and far-reaching undertaking than originally was conceived. Thus far, most Deans' Grants Projects have faced two basic problems: (a) how to find the most effective way to bring about a change of attitude among education faculties toward the handicapped child per se, and in the negative feelings toward Public Law 94-142 and the regulations relating to Sections 503 and 504 of the Vocational Rehabilitation Act of 1973, and (b) how to prepare the faculties for the reconceptualization of the teacher-training curricula. When a Dean's

Grant Project has gotten off the ground, the dean, faculty, and students realize that the project can bring about a long overdue change in our total educational system. Thus the original modest goal of the Deans' Grants Projects has become a large one — institutional change.

Documenting the Deans' Grants Projects

Today we find ourselves in an era in which a congressional mandate specifies that states must establish procedures "*to assure that, to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped and that special classes, separate schooling or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily*" (Education for All Handicapped Children Act, 1975, P.L. 94-142, Section 612). The new policy rules out blanket judgments by local school officials that specific types of handicapped children shall be educated in special classes or special schools. Instead, each child must be judged individually on the basis of a careful analysis.

This new law can be implemented only if fundamental changes in the preparation of our teachers are brought about. The Deans' Grants Projects represent an initial effort to stimulate institutions of higher education to reconceptualize their teacher-preparation programs to meet the requirements of the law. However, not all teacher-preparation programs currently receive Deans' Grants; in all probability, all never will. Some are interested in receiving such funding, others are not. Nevertheless, the mandate of the current legislation applies to all of us. Changes must occur in the training programs of educational personnel if we are to continue to produce employable, professionally relevant products.

It was out of this concern for the need for change in institutions of higher education that this volume evolved. Realizing that teacher educators must rethink their training curricula and that the initial efforts on the part of the first Deans' Grants Projects revealed such reconceptualization as a monumental task, a document sharing the work of various Deans' Grants Projects appeared to have merit. Initial querying of the projects by Professor Maynard C. Reynolds, Director, National Support Systems Project, supported this belief. Old adages, such as, "If I knew two years ago what I know now about changing teacher-preparation programs," or "If we can help others from reinventing the wheel," typified the feelings of project personnel about the value of the document proposed by Reynolds.

The focus of this volume is upon the changes that are needed in teacher-education programs to address the process of mainstreaming handicapped children. The papers represent a number of approaches to implementing this reconceptualization of teacher education. The authors, who are associated with Deans' Grants Projects speak from different professional viewpoints.

To put these varying approaches into some meaningful framework, the papers have been ordered so that the first section presents an overview of past and present special education services and advances a philosophy for the future of teacher education in general. In the second section, the papers examine models for change and their application to Deans' Grants Projects. The third section presents case studies of the evolution of three Deans' Grants Projects. The fourth section deals with specific project practices that may hold promise for the successful implementation of change in higher education. The fifth section examines several topics that intersect with the foci of all Deans' Grants Projects. Sections 6 and 7 consist of one paper each. In the former, the author presents a commentary on the challenges facing education in general in today's society; in the latter, there is presented initially an historical analysis of different approaches to serving children with special needs and, then, a synthesis of the efforts, problems, and implications of the Deans' Grants Projects to date.

In some sense, this volume may represent the state of the art as it relates to Deans' Grants Projects. We feel that the information provided has value not only for those faculties contemplating application for a 5
Dean's Grant but, also, for all professionals who are or may be involved in implementing change in higher education.

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Special thanks must be given to the many individuals who played an important role in the preparation of this volume: to Karen Lundholm, Assistant to the Director, National Support Systems Project, for over-all coordination of the publication; to Sue Bye and Kathy Bass, secretaries with the National Support Systems Project, for the indefatigable transcription of the manuscripts; to Rhonda Vaughn, secretary with the Dean's Grant Project, University of Missouri, for her admirable persistance in facilitating especially telephone communication between authors and editors; and to Sylvia W. Rosen, the National Support Systems Project Publications Editor, for aiding in and abetting the production of this volume.

Section 1

Views From the Top: Administratively, That Is!

Changing human behavior can be a long, laborious process. Changing major societal institutions often appears an impossibility. Yet, education today finds itself in an era mandating significant change, particularly as it relates to the education of handicapped children. The courts and Congress, to a large extent, have provided the impetus for this change effort. Educational personnel, such as, regular and special education teachers, counselors, and administrators, are confronted daily with the placement of increasing numbers of mildly and moderately handicapped students in regular classrooms (with appropriate specialized support systems, I hope). The implementation of such a mandate for change is accompanied, not surprisingly, by an examination of attitudes, skills and competencies, reward systems, and communication among the various groups affected. Such an examination makes it eminently clear that education does not (or should not) operate in a vacuum. In other words, change toward educating handicapped children in the least restrictive environment has social, economic, and political implications in addition to educational ramifications.

The requirement for change in education has not, by any means, been confined to local or state education agencies. Colleges, schools, divisions, and departments of education in institutions of higher education must examine their training of educational personnel in light of the realities of 'mainstreaming' handicapped students. Such scrutiny cannot be confined to just one aspect of teacher education, that is, to departments of special education, but must extend to all areas of teacher education. Certainly, a major focus of the change effort is the redefinition of the relations among and between the various facets of teacher preparation, particularly of the separatism existing between special education and regular education in many teacher-training programs.

The papers presented in this section address the necessary changes in teacher education as viewed from within and above, that is, by deans of two colleges of education. Together, the papers present a capsulated panorama of special education past and present, with a look toward the future of not only special education but, also, teacher education in general. Traced first is the metamorphosis of special education into a separate field of service, heralded as a boon for handicapped children. Disillusionment with this separatist approach, accompanied by the resultant mandate for educating handicapped students in the least restrictive environment, is the pivotal point between the past and the future. A call for specific reform in teacher education, based on the implications of the least restrictive environment concept, includes some thoughts on the possible directions of such change.

To many of us, the future of teacher education is unclear at best. Therefore, it seems appropriate to tap the thoughts of people who hold decision-making positions in teacher-education programs.

Reflections on the Past, Present, and Future of Special Education

Robert L. Egbert[1]
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ABSTRACT. *This paper describes one dean's view of several dimensions that have led to the present movement in special education toward mainstreaming and the implications of this movement for the issue of teacher education.*

An Historical Perspective on Special Education

The present movement in special education is one of placement of handicapped children in least restrictive environments. To some observers, this thrust represents a backward step by educators to the condition that existed before special classes for handicapped children came into being. Have we, in fact, come full circle? Is the least restrictive environment the same program as the alternative that was offered handicapped children before the special classroom? No. The pre-1950 special education program in which handicapped children were enrolled in regular classrooms was quite different from the current concept of the least restrictive environment. An historical analysis of change in special education may dramatize this difference.

As a means of reviewing the course of special education over the last 50 or so years, imagine a mythical town with a few handicapped children and youth. Then, by way of comparison, let us consider how those children might have been treated over the course of the decades.

The place is Anytown, USA, population 12,000. The year is 1920. Anytown has four, eight-grade elementary schools and one high school. Many young people are not in school. Some youths, especially those of high school age, are working, some are apprentices, and a number just hang around. Jeremy, age 8, falls into none of these categories. He is crippled by cerebral palsy and is hidden away in the back bedroom of his home. In fact, few people in Anytown know that he exists. Jeremy's mother feeds him and cares for his other physical needs, but she is embarrassed and feels guilty that her son is disfigured and repulsive.

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[1] Dean of the Teachers College, Professor of Educational Psychology and Measurement and Professor of Psychology.

Fifteen-year-old Annie does not attend school, either. Annie started first grade when she was 5, but after three years she could read only a few words, was unable to spell, and performed only the simplest counting exercises. Annie began attending school less and less frequently. She now works as a hired girl, scrubbing floors, dusting, and doing dishes. Annie is a good worker but she has to be told everything she is to do and, even then, she cannot be trusted with complex tasks.

At 9 years of age, Billy is in school, but probably not for long. Billy is a real hell-raiser whose most recent feat was burning a straw stack. He curses at his teacher, fights, shoots spit wads, and stays away from school whenever it pleases him.

By 1950, life has changed in a number of ways for Jeremy, Annie, and Billy and for their peers. Society, and more particularly education, acknowledges the handicapped child and is struggling to learn how to meet the needs of all individuals, particularly those with special needs.

Many changes have taken place in the nation but Anytown still has 12,000 people, four elementary schools, and a high school. School enrollment has increased, however, as compulsory attendance laws are taken more seriously and provision is made for students with differing needs and abilities. Once again there is a Jeremy with cerebral palsy. Neighbors and relatives know him and converse with him when they come to
10 visit. Confined to a wheelchair, Jeremy spends most of his time at home. However, he is enrolled in school and receives the services of a visiting teacher, which allows him to succeed in basic school subjects. He reads widely, listens to his radio, and enjoys working verbal and mathematical puzzles. In a city of 250,000, Jeremy would attend a special class, but Anytown cannot justify such an expenditure for its few crippled children.

Our 1950 Annie also has a different life. Whereas Jeremy's life is happier and less restrictive than it was for his 1920 counterpart, life for Annie is more confining. At 15, she is still in the eighth grade — two years behind her age mates — and she is physically mature. However, she is unable to read beyond the third-grade level, is failing in school, and unhappy socially. She would have been held back more often except for social promotions and the recognition by successive teachers that Annie would not benefit by another year in their classrooms. If Annie lived in a larger city, she would attend vocational school and might participate in a work-study program.

Billy still creates problems for his teacher. The school psychologist has diagnosed his antisocial aggressive behavior as an acting out of his frustrations with an unhappy home life and low-normal IQ. Reports describing his behavior, including the psychologist's diagnosis, have been filed with the principal, superintendent, and juvenile court.

1970 finds Jeremy attending school regularly in a class for the orthopedically handicapped. His teacher is specially trained, understands the nature and causes of Jeremy's condition, and knows how to work with him and his peers in the special class. Jeremy's parents and friends readily accept him as a person, but he has different friends at home and school. Other teachers and many students in the school do not know Jeremy well. They only know that there is a class for crippled children where a special ramp was built to accommodate wheelchairs. It may be that the school lunchroom personnel know more about this special class than the faculty because they wheel carts full of food down to the room and bring back the empty trays after lunch.

In 1970, Annie is also enrolled in a special class. However, she enters via a side door and slips furtively up the back stairs because everyone knows that students in her class cannot succeed in regular classrooms. Once inside her room, Annie's mood changes as she meets with other students to read special materials, work on practical arithmetic problems, and deal with issues directly related to employment and daily life.

Billy is in a special class, one intended to help him to learn more effective ways of living and working with his peers and adults. Behavior modification techniques are used in Billy's classroom and his parents have had instruction in the use of reinforcement procedures to reduce his disruptive acts at home.

Witness the year 1978. Jeremy attends school regularly, spending most of his school day in a regular classroom. He goes to lunch with the other children, moving readily through halls and lunch lines in his wheelchair. For brief periods several times each week, Jeremy goes to a resource room where he is assisted in developing better motor coordination. A consulting teacher visits, occasionally, with both Jeremy's regular teacher and his resource room teacher to discuss Jeremy's progress and the ways in which the school program can be adapted to fill his needs.

Annie's school life also is different in 1978. Approximately half of her school day is spent in regular classes learning basic literacy, mathematics, and social skills. Annie's teachers speak frequently with the consulting teacher and secure materials appropriate to her skill-development level. The other half of Annie's day is spent in a special vocational needs program in which she is learning how to secure and keep a job as well as certain fundamental vocational skills.

Billy is no longer in a special class. Although his regular classroom teacher still sometimes despairs of his behavior, frequent consultations with the resource room teacher, with whom Billy spends some time each week, and with the consulting teacher have given her insight to his behavior and have assisted her to adapt procedures so that she is becoming more effective in working with him. She makes extensive use of behavior modification techniques to reduce Billy's frequent disruptions and is able to spend more time on academic issues.

The development over five decades seems clear. Initially, handicapped children were cut off from persons other than members of their immediate families. In succeeding years, some children attended regular school classes but, often, no provision was made for them other than to "keep them back" in the vain hope that repetition would prove successful. Special schools were sometimes available for blind, deaf, and severely crippled children, but usually they were residential schools and, frequently, far from the children's homes. As the years passed, special class or day school models evolved. By 1970, almost 4 per cent of all children and youth between 5 and 17 years of age were enrolled in such classes or schools.

Despite this national commitment to the separation of handicapped and nonhandicapped children, no consistent body of research supported the separation. In fact, no consistent difference in achievement was demonstrated between handicapped children in special classes and those in regular classrooms. As a result, many educators became disillusioned with special class education. At the same time, parents began expressing dissatisfaction that their children were being publicly identified as handicapped and as requiring special treatment. Minority groups also were discontented with the number of their children identified as handicapped and questioned the supposed superiority of separate education.

Thus, by the 1970s, demands from parents and other special interest groups as well as the judgments of many educators agreed that special classes and special schools should be eliminated to the extent possible. The resulting philosophy says that each child should be placed in what is for him/her the "least restrictive environment."

Special Education and The Least Restrictive Environment

Important interactions take place in the schools that employ mainstreaming. Exploration of some of these interactions is essential to public schools' operationalizing mainstreaming and to effective teacher-education programs.

The present approach to special education has a number of characteristics not found in earlier attempts to provide education for handicapped children. Identification and consideration of these characteristics demonstrate that the current trend is not a return to the 1945 point of the circle but, rather, a substantial move forward. How sharp the angle of advance proves to be will depend on two factors: (a) how well the critical characteristics of the least restrictive environment concept are defined and implemented, and (b) how effectively educators deal with related philosophical issues.

Schools that attempt to provide a least restrictive environment for special education students usually maintain both regular classrooms and resource rooms.[2] The regular classroom houses nonexceptional children, exceptional children enrolled on a full-time basis, and exceptional children who spend some time in that room and some time in a resource room. The curriculum in the regular classroom as well as equipment and special materials are mediated and modified by the teacher. Enrolled in the resource room are exceptional children who also spend some time in the regular classroom. It is possible that some children will spend all their time in the resource room using specialized materials and equipment, with the assistance of teacher aides, to implement appropriate instruction. Interacting with both the regular classroom teacher and the resource room teacher is a consulting teacher. In an administrative relation to all three teachers is the principal. In addition to this important role inside the school, the principal also works with various interested persons outside the school. These persons include parents of exceptional children, parents of nonexceptional children, and others in the community. Of course, there are other important roles in a mainstreamed school — the school board, the superintendent and his/her staff, and other building personnel. However, the adults central to the success of a mainstream program are the regular classroom teacher, the resource room teacher, the consulting teacher, and the principal. These persons and their interrrelations are shown in Figure 1.

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[2] The personnel roles described here represent only one approach to organizational structure. Other administrative arrangements are possible.

Each of the four key persons must possess skills and attitudes beyond those considered essential to school personnel prior to mainstreaming. These skills, understandings, and attitudes are crucial to an effective

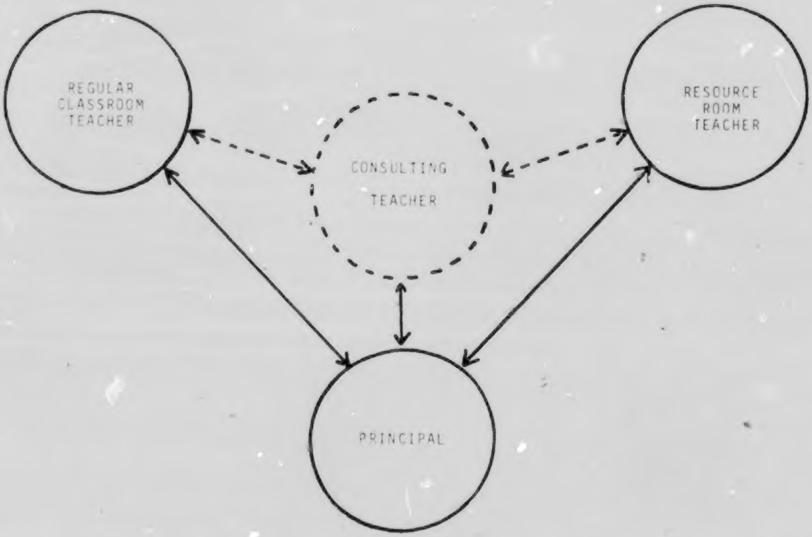

Fig. 1. Relations among public school personnel within the context of mainstreaming.

mainstream program. If schools or colleges of education are to contribute to the success of mainstreaming, they must examine the implications for the training for four types of personnel, not simply one subgroup.

One particularly crucial skill that persons in a mainstreamed school must acquire is that of *working with other professionals*. Unfortunately, this skill has not previously been incorporated into many teacher-preparation programs. Typically, the initial response of American adults, including professional teacher educators, to the opportunity to work in teams or call upon others with special expertise is one of rejection. Perhaps this response is a continuation of the adolescent need to establish one's own identity and competence. Unfortunately, perpetuation of this rejecting response means failure for a school that is attempting to provide a least restrictive environment.

All key educational personnel must learn to work as a team: to share ideas, concerns, information, and feelings. Although the principal also is a member of each possible team, his/her greatest role is to help ease tensions, promote self-confidence, open communication channels, and, in other ways, to facilitate the formation of effective working relations. On the other hand, the regular teacher needs to be able to work directly with a consulting teacher and, probably, with a resource room teacher. The resource room teacher and the consulting teacher must be able to form effective working relations with not just one but a number of classroom teachers.

Therefore, any professional education program that is designed to prepare personnel to work in schools providing a least restrictive environment should emphasize, through classwork and practical experience, the formation of effective, interpersonal working arrangements. Prospective teachers and principals must work through their own anxieties in joint planning and implementation sessions. They also must learn to understand and live with the anxieties and idiosyncrasies of others. Fortunately, many elementary schools and some secondary schools already have a good deal of experience in various types of teaming arangements. Perhaps teacher educators can learn from those situations as we move ahead in designing preparation programs to meet the demands of new special education programing.

One of the most impressive dimensions of current special education programs from an outsider's standpoint is the mediation of learning through equipment, materials, and highly skilled teachers who know how to use these resources. All principals, not just those who have special classes in their schools, need to understand the vital role media can play in education, to know what equipment and materials are available and needed, to select and secure them by working with teachers, and to help ensure that teachers make effective, appropriate use of the equipment and materials. In educational personnel-preparation programs, teacher educators must attend to this additional special skill which does not simply mean offering the typical audio-visual class, although such a class is useful. However, these classes usually are organized on the assumption of a narrower range of individual differences without attention to many materials available in and through special education.

The preceding discussion has focused on two relatively new skills needed by all educational personnel involved in implementing mainstreaming. One cannot, however, overlook other variables, such as attitudes toward children, parents, and other professionals as well as awareness of individual differences and the skills to provide for these differences. All these dimensions are important to a successful mainstream program and, therefore, have implications for teacher education.

Concluding Comments

Fifty years ago in most schools there were only two choices for most handicapped youngsters: either enroll in a regular classroom with 30 other children or stay away from school. The concept of the least restrictive environment provides multiple programing options in which handicapped children can be enrolled in a regular class none, part, or all of the day and in a special class all, part, or none of the day. They can interact with nonhandicapped children in academic studies, in nonacademic studies, in the lunchroom, at recess, or in any combination of these. 15
They can be tutored, work independently with special equipment, belong to a small group, or participate in large group instruction. All these options can be programed in a smooth-flowing combination such that handicapped children feel comfortable and happy as they move from one circumstance to another, and also progress instructionally commensurate with their abilities.

Personnel-preparation programs should prepare regular teachers, consulting teachers, resource room teachers, and principals to function comfortably in this range of programing alternatives. The least restrictive environment has the potential of being a step forward, not just for handicapped children but for all children. Indeed, reference to a wider range of human characteristics was deliberately intended to include all children in the same general context — not handicapped children and nonhandicapped children separately. One of the school's greatest tasks will be to help children and teachers alike to become oblivious to the former categorization of children as handicapped or nonhandicapped.

Despite the promise offered by education in a least restrictive environment, a few precautions are necessary.

MONEY

The first of these cautions is money. Some educators and legislators have hailed mainstreaming as a money-saving movement. This notion suggests that without expensive special classes, educating exceptional children will not cost so much. *The notion is absolutely false.* If properly conducted, educating children in a least restrictive environment will not cost less money, it will cost more money. Mainstreaming will provide better education for all children but it will be more expensive. Educators must be willing to admit this fact and to take public stands in support of increased funding.

NONEXCEPTIONAL CHILDREN AND THEIR PARENTS

Parents of exceptional children have organized effectively to secure better opportunities for their children. So long as such organizations were not seen as interfering with the educational opportunities of nonexceptional children, parents of these children have been either passive toward or supportive of the special education movement. If circumstances develop such that education in a least restrictive environment appears to hinder the education of the nonexceptional child, a backlash will be triggered by that child's parents.

TEACHERS

When special classes were being established, many teachers were not pleased. They felt that such identification and segregation were educationally inappropriate and socially indefensible. Years of special classes and verbal bombardment extolling the virtues of special classes have dulled their sensitivities. As a result, today, many teachers are displeased that special education classes are being eliminated. Furthermore, teachers recognize that [illegible]ng to their classes children whose abilities and behaviors are somewhat different will add to the already enormous burden of individualizing instruction for "30" children. Intensive effort will be needed to ensure the provision of necessary assistance for teachers and administrators as mainstreaming is introduced and implemented.

SCHOOL OF EDUCATION PERSONNEL

Teacher-education faculty members have the same fears, pride, generosity, and self-protective feelings as everyone else. Their concerns must be faced openly and honestly and their strengths must be used constructively.

TIME, PATIENCE, AND UNDERSTANDING

A final caution is that change always produces disturbance and, in turn, always results in pain and resistance. If we are to achieve the goals of education in a least restrictive environment, we must be prepared to spend time, to be long-suffering, to be understanding. We also must be willing to explain, exhort, and defend. Mainstreaming will not occur in one year nor in five years. Mainstreaming is a vital, timely concept. It can be a critical advance on our voyage toward an educational ideal.

Public Law 94-142: A Matter of Human Rights; A Call for Change in Schools and Colleges of Education

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ABSTRACT. *Several key concepts underlie the implementation of Public Law 94-142. These concepts and the reforms implied in providing the least restrictive environment can be the basis for the thorough and complex changes that are needed in training teachers. Teacher preparation is in need of a revamping to educate professionals that are both generally well-educated and professionally prepared.*

> The tragedy is that most people do not recognize the life and death nature of teaching. . . . Every moment in the lives of teachers and pupils brings critical decisions of motivation, reinforcement, reward, ego enhancement, and goal direction. Proper professional decisions enhance learning and life; improper decisions send the learner towards incremental death in openness to experience and inability to learn and contribute. Doctors and lawyers probably have neither more nor less to do with life, death, and freedom than do teachers. To deny the child the skills and qualities of the fully professional teacher exacerbates the assaults on freedom which much of mass education renders inevitable, and leaves to chance the kinds of interventions by teachers that open minds and enhance self-images. Therefore, the teaching profession must continue its negotiations with society in behalf of more perfect education for its children. Teaching is definitely a matter of life and death. *It should be entrusted only to the most thoroughly prepared professionals.* (Howsam, Corrigan, Denemark, & Nash. *Educating a Profession*, 1976, p. 15)

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Need for change in higher education

The Education for All Handicapped Children Act, Public Law 94-142, received a clear mandate in the Congress of the United States. It was passed 404-7 in the House of Representatives and 87-7 in the Senate. This Act is the most important piece of educational legislation in the history of this country. With its far-reaching implications for schools and colleges, it could be the vehicle through which education emerges as a profession.

Key Concepts in Public Law 94-142

1. Basically, the Act must be considered a piece of Civil Rights legislation; it cannot be fully understood except from this perspective. A review of the congressional testimony on P.L. 94-142 indicates that the basic rationale for providing access to educational opportunity for persons with handicaps is that they are *human beings* living in America and, therefore, they have a right to *access* to educational opportunity, even if it costs more. The roots of the Act are in the Civil Rights movement of the 1960s. The rhetoric of human rights is now being written into the legal and legislative structures of this land for handicapped persons, minority races, consumers, women, inmates of prisons and mental health 18 centers, and senior citizens. As we implement the educational concepts in P.L. 94-142, we must keep in mind that this Act calls for social, political, and economical as well as educational reforms or our strategies for change will not succeed. If we ever needed a specific example of the use of education as an instrument for social progress, this Act is it.

2. The Act uses the terminology "least restrictive environment" and "appropriate education." It identifies the *regular classroom* as the "least restrictive"; if other settings are used for placements, movement to such settings must be justified. The implications of placing handicapped children in regular classrooms are enormous, not the least of which is that all educators — regular classroom teachers, counselors, administrators, and other support personnel — must now be educationally prepared to work with persons with handicaps. Thus a change is called for in the roles of all educational personnel and, especially, in the roles of special educators.

3. The beneficiaries of this Act are 12 per cent of the human beings in the United States between the ages of 3 and 21. By 1978, a "child find" must be completed and services must be provided for the age group 5 to 17. By 1982, the age range receiving services must extend to include persons aged 3 through 21. However, some states have gone beyond this age group and, in their enabling legislation, have started the "child find" at age one. Since many agencies work with these age groups, school per-

sonnel now must view themselves as part of a human service delivery system rather than just a school system. New linkages with these agencies and new systems of training to bring about better collaboration among all the personnel participating in the human service delivery system must be developed.

4. For years, we have talked about individually designed education, but P.L. 94-142 requires it. If such individualized education is not provided, due process procedures offer parents legal alternatives to insure individualized education for their children. It is critical to note that the legislation talks about individualized *programs* and individualized *plans*, not just individualized *instruction*. Even though it is not stipulated, one realizes that this legislation views as educative the total setting in the school, which includes the classroom as well as all interactions between teachers and students. The milieu of the school will teach attitudes, such as understanding and respect for the individual differences of persons with handicaps and the responsibility for protecting the human rights of other persons. Therefore, the plan for mainstreaming must include a review of the total environment.

5. Another goal we have discussed for years is parent-school interaction. P.L. 94-142 requires a sign-off by the child's parents, guardian, or surrogate on the individualized plan. How these child-parent-teacher relationships are developed, starting with the "child find," will be critical in achieving the goals of this Act and restoring the public's confidence in its schools.

Least Restrictive Environment

Public Law 94-142 calls for *free, appropriate public education for all*. There follows a list of reforms to make the concept of least restrictive environment a reality in the schools of this country.

1. *We must eliminate* the labeling and classification of children, the social stigma that this labeling produces, and the notion that schools ought to function as screening stations for other institutions (reversal of the social Darwinistic trend).

   Instead, we must develop schools based on the principle of "no rejects" — the firm assumption that every human being has a right to an education and the right to be treated as a person (not an object or a symbol on a chart, or a category in a student-grouping structure).

2. *We must eliminate* the marking system and the illegitimate comparisons it makes, the pressure it creates, and the failure it produces.

   Instead, we must develop a continuous progress-reporting system with diagnostic profiles describing each student's human variability, exceptionality, and intellectual-personal growth.

3. *We must eliminate* overcrowding and its resulting class loads, easy anonymity, and shallow teacher-pupil contacts, the objectivity model

that is fostered by a technical approach to accountability, which prevents meaningful relations from developing among administrators, teachers, students, and parents, and the "right answer syndrome," which discourages values clarification and risk-taking activities.

Instead, we must develop the kind of personalized relations between teachers and students in which students are free to say right out loud what they do *not* know as well as what they *do* know; relations based on the realization that academic freedom for teachers *and* students is reciprocal. One cannot exist in an educational community without the other.

4. *We must eliminate* curricular tracking, the caste system it fosters, and the grade level lock-step that ignores what we know about the ways in which unique selves develop and learn.

   Instead, the educational setting should be organized so that students know what they can do to achieve a success experience. The methods used to differentiate instruction should be neither exclusively behavioristic nor cognitive, child centered nor discipline centered. They should be purposefully eclectic.

5. *We must eliminate* the inflexible and nonvariable time schedule and the conformity it demands.

   Instead, the school must respect the individual's own rhythm, learning speed, and style of learning.

6. *We must eliminate* the paucity of curriculum options and the boredom it creates.

   Instead, the school must be integrated into the community and act as an integrator of the community.

7. *We must eliminate* normative testing and the misinterpretation and misuse of intelligence, achievement, and aptitude tests.

   Instead, we must develop criterion- or domain-referenced evaluation systems in which the concepts of expectancy and capacity are related more to access to competent teaching and adequate educational resources than to inherent individual learner traits.

8. *We must eliminate* the failure to take responsibility for the progress achieved by all students, the "push outs" as well as the merit scholars, while they are under our guidance.

   Instead, no matter how bad home conditions may be, students ought to know and feel more at 3 p.m. than they knew and felt at 8 a.m. They should know and feel more in June than they did in September, and certainly more in 1976 than in 1970. We must stop blaming the victims.

9. *We must eliminate* the stereotyped view of teachers as people who perform the same role 40 years after the start of their careers as when they began.

   Instead, differentiation of roles in both schools and a variety of human service settings should characterize teaching. Support systems should be established through which teachers share their specific knowledge and skills with other human service professionals.

10. *We must eliminate* the cruel, unreasonable, professionally demeaning practice of corporal punishment and the hyprocrisy of seeking to achieve professional status while being the only social institution in which it is still legal to beat human beings: The two are antithetical. (Even though the 1972 National Education Association Delegate Assembly voted to ask all states to abolish corporal punishment immediately, about half the states in this nation still have laws and/or regulations permitting its use.)

    Instead, we must exemplify the humanity we explicate: that might is not right, that students do not have to give up their civil rights when they walk into a schoolhouse, that children learn what they live and will not learn such values as love, compassion, and justice if the schools make a sham of them. I know of no college of education that offers a course on how to beat children — it is an *unprofessional act.* Teaching will become a profession only when it stops using outmoded regulations to accommodate the inadequacies of some of its members and starts using professional *ethics,* knowledge, and skill in teaching and learning to guide and judge professional performance.

11. *We must eliminate* racial, religious, social class, and generational isolation, the isolation of the handicapped, and the prejudice and discrimination that isolation breeds; the "defeatist" or "snobbish" self-concepts it nurtures; and the mockery that this isolation makes of the fundamental right of access to equal educational opportunity.

    Instead, we must reaffirm our belief that all human beings have a right to become all they are capable of becoming, and that the education of other people's children is as important as the education of our own.

Needed Reforms in Teacher Education to Prepare Teachers to Implement Public Law 94-142

The most vivid truth that emerges from any analysis of the goals and concepts included in P.L. 94-142 and a review of teacher education as it exists in this country today is that we will not succeed if we continue to conceptualize special education in a framework separate from regular education at any level of the educational spectrum. Until we get rid of this dualism in our teacher-education institutions, our public schools will continue to mirror the conditions present in teacher education. Therefore, we must prepare all teachers to implement the concepts of P.L. 94-142. We must reform all aspects of teacher education, not just departments of special education.

At the present time, however, teacher education not only does not operate in a governance structure that allows it to control its own program development and reward system, but it also lacks the life space necessary to prepare teachers. Moreover, it is funded at the lowest level of any professional education program in the United States (Olson, 1975). It attempts to do too much with too little.

LIFE SPACE

If teacher educators are to provide the essential knowledge and skill to pre-service students, then they will need the life space to do so. The term "life space" is used to refer to the resources, often in short supply in many teacher-education programs: time, facilities, personnel, instructional and research materials, and access to quality instruction in academic units.

Across the country, today's teachers are certified and placed in service with only a minimum of professional preparation. The number of hours alloted to the professional component for secondary education majors is about 18 of a 128-hour program (9 of which is student teaching). The total is little more for elementary education majors. The professional education sequence comprises, on the national average, only 13 per cent of an undergraduate program and is completely inadequate. What is needed is a protracted program of professional education similar to other professions. Such a plan would extend the training period from four to five years and add a sixth year internship as a critical part of teacher preparation. This latter experience would be gained in a school or teaching center that is operated collaboratively by the college of education and the organized teaching profession.

Licensing should be awarded only after this period of demonstrated competence (internship) under the supervision of a mentor and/or local review board of professional peers. In New York and Ohio, state commissions have already submitted proposals for five-year programs (Ryan, Kleine, & Krasno, 1972; Teacher Education Conference Board, 1977). Many other state units of the American Association of Colleges for Teacher Education also are studying five- and six-year patterns of preparation.

KNOWLEDGE BASE

Once the life space is provided, teacher education can identify and teach the valid knowledge base needed by teachers, which would insure that prior to entry into the teaching profession, teachers would be competent to take on the complex task of teaching.

Teaching is an applied *science*. The difference between an educated person and a professional teacher is *pedagogy* — the science of teaching. Teacher education is a process that transforms educated persons from lay citizens to professional educators.

The complexities of teaching require rigorous pre-service preparation. Teachers need to be well educated in liberal or general studies because *all* school teachers are teachers of general education. They also must be well versed in the disciplines connected to their teaching fields and the learning implications for students. In addition, teachers require intensive preparation in the conceptual frameworks within which they can develop diagnostic and planning skills. Another major focus of teacher education must be a broad repertoire of teaching behaviors and skills that incorporate both theoretical and experiential components.

To assist pre-service students in understanding the relevance of generic skills and theoretical components to specific community and school needs, preparation programs should provide elective options for every student, enabling study in depth of at least one local, regional, or national subculture. Such study should be linked to a broad framework of sensitization to individual and cultural differences and their implications for teaching and learning. All of these program components are essential to the preparation of a teacher. Each contributes to the shared, systematic, and scientific knowledge base for pedagogical decisions.

In the light of P.L. 94-142, the following sample list of some specific subject matter and skill areas should be expected of every teacher completing a pre-service teacher-education program (Gruber, n.d.). Keep in mind that this list is merely illustrative and not exhaustive. As you reflect on the list, ask yourself whether even this abbreviated list of essential knowledge can conceivably be taught to anyone in 9-18 credit hours of study, especially if you want to use the kind of teaching strategies that are powerful enough to help the pre-service students to internalize this knowledge and skills into their behaviors.

1. *Legislation and Court Cases*
   - a. historical
   - b. parent rights
   - c. child rights
   - d. school-based implementation — viewpoint
     1. parent
     2. teacher
     3. administrator
     4. taxpayer
     5. businessman
2. *Philosophical Considerations*
   - a. purposes of public education
   - b. individual and group processes
   - c. moral issues facing teachers
3. *Human Relations*
   - a. individual differences
   - b. strategies for classroom use
   - c. labeling issues
4. *Delivery of Services*
   - a. description of program types
   - b. supportive services within school
   - c. parent support involvement in program
   - d. auxiliary services — community

5. *Intellectual-Personal Uniqueness of Human Beings*
    a. unique learning patterns
    b. behavior patterns requiring intervention
    c. academic patterns which are unique
6. *Observation*
    a. presentation, analysis, and application of four methods of observation
    b. techniques for recording and graphing
7. *Informal Inventories*
    a. academic
    b. social
8. *Diagnostic Teaching*
9. *Referral Procedures and Multidisciplinary Team (MDT) Process*
    a. determine when referral to MDT is appropriate — through case studies
    b. describe referral process used by local systems
    c. awareness of formal assessment instruments used by MDT members
    d. MDT staffing
    e. parent conferencing

Programing for Individual Differences

11. *Environmental Control Strategies*
    a. time-space arrangements in the classroom
    b. structuring classroom instruction to meet individual academic, social and emotional needs
12. *Reading*
    a. skills development
    b. selecting and adapting materials
    c. teaching strategies to meet varying needs
13. *Mathematics*
    a. skills development
    b. selecting and adapting materials
    c. teaching strategies to meet varying needs
14. *Spoken and Written Language*
15. *Application of Strategies to other Curricular Areas*
16. *Teaching/Learning Strategies* (individual focus)
    a. describe and explain behavior
    b. describe terminology and basic concepts of operant conditioning applied to behavior management
    c. describe terminology and basic concepts of counseling techniques applied to behavior management

All prospective teachers must have, in addition to the professional component and specialization in a discipline, a solid background in the so-called "undergirding disciplines" of education as a form of pre-education analogous to *pre*-med or *pre*-law. Undergirding disciplines are defined as psychology, sociology, anthropology, and philosophy. However, a series of changes must be made in teaching the formats and conceptual frameworks of the undergirding disciplines, too. The emphasis in all of teacher preparation should be on "theory in use," not merely memorization and regurgitation. Also, general education requirements must be revamped to include interdisciplinary studies focusing upon the nature and implications of knowledge and taught by an interdisciplinary team from the social-behavioral sciences that includes at least one professor from education. Throughout all aspects of the program, practice and theory should be interlocked. Preprofessional students should learn to operate from a sound professional base of principles rather than as functional technicians.

We also need to ask whether the knowledge being offered to prospective teachers is appropriate to the communities they will enter, and whether the communities they will enter, for which their education should prepare them, are humane. If they are not, then the prospective teachers should have the skills, understandings, and desire to change things. Prospective teachers will have to be educated to be tough-minded on occasion, capable of dealing with the unexpected and skilled in the politics of school and community change. If teachers are to become advocates for handicapped persons, they must learn to clarify their own values and stand up and affirm them in their actions. As Sarason said,

> At its root, mainstreaming is a moral issue. It raises age-old questions: How do we want to live with each other? On what basis should we choose to give priority to one value over another? How far does the majority want to go in accommodating to the needs of the minority? The emergence of mainstreaming as an issue raises but does not directly confront these questions. To the extent that we put discussion of mainstreaming in the context of education and schools, we are likely to find ourselves mired in controversies centering on law, procedures, administration, and funding. These are legitimate controversies because they deal with practical, day-to-day matters that affect the lives of everyone. But the level of difficulty we encounter in dealing with these matters ultimately will be determined by the clarity with which the moral issue is formulated. This clarity will not "solve" the practical problems but, at the very least, it will make us more aware of two things: (a) so-called practical matters or problems always reflect moral issues, and (b) differences in moral stance have very practical consequences. (Sarason, 1978, pp. 38-39)

To prepare teachers to work with the age range of clients prescribed by P.L. 94-142, the knowledge base will have to apply to teacher roles beyond schools as we now know them. A look into the future indicates that teachers and other educational personnel will perform a broad range of human services operating from community-school centers; they may be street workers; they may teach in settings that involve children and parents; they will relate to social services personnel in corrections, mental health, and rehabilitation agencies; and they will be part of teams whose goals are to create healthy human communities. Indeed, the range of personnel educated by the reformed programs probably will be as broad as the needs of the communities served.

The professional teacher educators of the future will be much less deferential to arbitrary authority, less specialized (in terms of specific knowledge and particular tasks), and more assertive, flexible, advocative, and political. Because they will be competent to provide a variety of services in a variety of situations, they will move easily and productively within classrooms, counseling sites, store-front schools, social agencies, correction centers, senior citizen centers, and so on — wherever their services are needed. Training programs will stress practical skills and techniques and also will emphasize the multidisciplinary knowledge needed to understand the dynamics of people relating to people in a variety of societal and educational situations. Trainees will view themselves as "human service educators" and not solely as classroom teachers. Understanding that a teaching/learning component is at the heart of all human service work, they will be able to function flexibly and effectively in a variety of educational situations and settings.

DIRECT EXPERIENCE

Teacher education is most effective when it is campus based and field oriented. But teacher-preparation programs today, partly because of constraining time and resource limitations, too often have been lecture oriented. The format and teaching strategies used in teacher education have been similar to those in other areas of university study. The fundamental problem is that this approach grossly underestimates the complexity of preparing a person for effective teaching. Teacher-training graduates feel that they are not particularly competent as a result of completing their programs; and, in fact, they are not. Teacher-education programs have insufficient impact upon prospective teachers because what is taught has little transfer to classroom practice; and there is much that cannot be taught or taught well because of the place in which teacher education is conducted. One does not adequately learn to teach by learning *about* it. It is also necessary to develop in the profession itself a strong theory-in-use foundation that gets at the role of the teacher as a professional beyond the classroom. One semester of student teaching near the end of college work is not adequate for this purpose.

Quality teacher education must include programs and facilities for extensive *laboratory* and *field-based* experiences. Most institutions that prepare teachers have neither program time, resources, nor facilities for making such experiences adequately available.

The fact that many educators quote what is in the book and deny what is in the learner, may be directly attributable to the sequence of events in the "shoe box" approach that is used in much of present and past teacher education. We have been suffering from a "hardening of the categories." There is no reason why we cannot organize education programs vertically rather than horizontally so that students can study professional education and a specific discipline or disciplines, and have direct experiences simultaneously. Each dimension would add meaning to the others as they are integrated into the professional growth of the prospective teacher.

Knowledge about the educative process, that is, the nature of children and youth, the nature of subject matter, the nature of the educational setting (school and society), the nature of the process of learning, the nature of teaching, the nature of instructional materials and media, the nature of one's self, the nature of the profession, the nature of evaluation, cannot be taught meaningfully in isolation of the complex problems to which it is to be later applied. All dimensions of teacher education — liberal arts, specialization in a discipline or broad field, professional studies, and personal study of self — can be integrated if they are offered throughout the careers of teachers while the teachers are both studying and practicing new approaches to teaching.

Engagement with the real work of teaching should begin as soon as a person thinks he/she wants to teach. Useful work divided according to goals that can be achieved by the most inexperienced and gradually increasing the required performance, is the ideal form of preparation. To answer the imperative need of young persons, at whatever ages they are ready, to *engage* in the real affairs of schools and communities and *participate* actively in the real work of teaching, there should be choices — many choices — to enable them to find out what they need to learn and, equally important, what they can contribute to the lives of others through their profession.

We need something like a system that, without exploiting prospective teachers, would permit them to move in and out of direct interactions and involvement in the profession. First-hand experience in schools and communities would enable prospective teachers to *inquire* into the conduct of human affairs as they worked and studied, adding society's skill of can-do to the professional ideal. The value of these first-hand experiences would be not merely to the students, by hastening their maturity and professionalism; not merely to the university, which would benefit by the increased reality of students' life styles, but also to the community, which would demonstrate the workshop of life to the young and challenge them to reform and improve it through participation.

Central to this new design is the recognition that all teacher education, schools and other educational community agencies, and colleges are interrelated and interacting components of *one* system. Schools, their communities, and colleges are unnecessarily isolated from one another to the detriment of all. We must replace our present disconnected approach with one that provides an interlocking process of educational improvement and training at all levels of the educational spectrum.

One thing is sure: If colleges of education are to be the training and development arm of the education profession, the profession is going to be the proving ground of colleges of education. Now that the romantic illusions have faded, colleges of education will be increasingly aware of what their professional constituencies require of them, or they will become obsolete.

Conclusion

Teaching and teacher education will achieve professional status when there is a clear identification of a corpus of validated knowledge and skills which is subscribed to by teachers and teacher educators, and when the public sees a massive demonstration that the teaching profession possesses the skills and knowledge to perform a service that is a matter of life and death to this society and its people. Making a reality of the concepts of P.L. 94-142 would constitute such a demonstration.

The problem is not that we *cannot* prepare teachers to accomplish this essential public service but that we *do not* so prepare them. Future teachers are getting not only a second-rate undergraduate education but, also, a third-rate professional education. We have been unwilling to provide the life space, time, and money that are necessary for true professional preparation. We have taken a short-sighted, cheap approach to teacher education and we are getting what we are paying for.

We are not faced with an insoluble problem, but the problem cannot be corrected by minor tinkering. As the authors of the AACTE Bicentennial Commission Report stated,

> What the teaching profession needs is a totally new set of concepts regarding the nature of the emerging human services society, its educational demands, the kinds of delivery systems necessary to provide public access to continuing educational opportunity, and the types of professional personnel and training required to reform public education. (Howsam, et al., 1976, p. 138)

Resources, both financial and personal, must be directed toward strategies that link schools seeking to change with teacher-education institutions seeking to break out of established patterns. Shuffling courses about is not the answer. A major shake-up is needed in the form and substance of teacher education, starting with the introduction to teaching and extending throughout the career of the teacher.

The key to making the concepts in P.L. 94-142 come alive in the schools of this country is a new commitment to the pre-service and inservice education of America's teachers. Reform must move in both directions — to *universities* as well as to schools.

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Systematic Approaches to Change in Higher Education

Section 2

The papers in this section present two models for facilitating change. The first centers on organizational development; the second, on change as an individual process. Each model is applied to specific Deans' Grants Projects. The section consists of three papers that reflect on the change process as it is viewed from within by deans or Deans' Grants project personnel who are engaged in the systematic implementation of change. From the latter papers, it is evident that although we may approach the change process from different orientations, many of the same problems, concerns, and obstacles are being encountered by the various Deans' Grants Projects.

In any organization undertaking innovation, one of the first questions that must be faced is how to conceptualize change itself. Dean Robert L. Egbert, University of Nebraska, offers a brief elucidation.

> In no human endeavor can progress be described by a straight line; that is, humans do not begin major undertakings at one point and move directly and expeditiously to a perfect conclusion. This erroneous concept of human behavior, depicted in Figure 1, conceives of the person or group as having a clearly identified starting point, an explicit, well-defined goal, and an efficient means of moving from the beginning point to the goal. Such an idealized version of human progress does not exist in reality.
>
> Nor are societal movements best described as circular, as some cynics are wont to say (the more things change, the more they stay the same). The circular interpretation (Fig. 2) insists that nothing in the world is new, that each succeeding generation simply rediscovers the wheel. Indeed, a favorite ploy of people who resist change is to say, "We tried that before. It didn't work then either."
>
> It is questionable whether either of the preceding two theories describes human behavior with substantial accuracy. Perhaps the progress of an explorer's sailing vessel offers a more accurate analogy. In education, as in the voyages of an explorer, such as Christopher Columbus, the vessel may be seeking ill-defined goals. It is skippered by a captain who seems uncertain of his destination; a crew that is frequently rebellious; a way that is often stormy; and a question of whether the destination will be recognized even if it is reached. Although progress is slow and uncertain, movement usually is made toward the general goal by tacking first this way and then that, being buffeted by storms, and frequently being pushed far from the intended course by massive currents that flow through the ocean of society and education (Fig. 3).

The discussions of change models and change implementation in this section illustrate Dean Egbert's thesis that change is neither linear nor circular. Armed with the knowledge and experiences of the different authors, we can hope to chart the future course of change in teacher education with a better understanding of how to reach our goal.

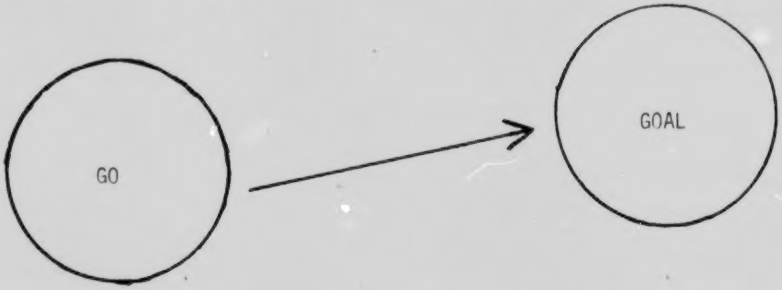

Fig. 1. The straight-line theory of change.

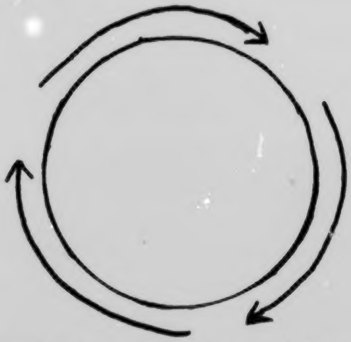

Fig. 2. The circular theory of change.

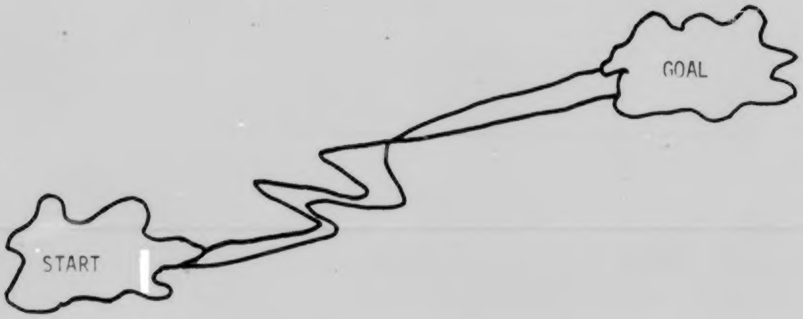

Fig. 3. The Columbus theory of change.

Processes of Change in Educational Settings: An Application to Mainstreaming

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ABSTRACT. *The problems faced in changing American education arise from the nature of schools as organizations, not from the lack of appropriate skills and attitudes in individual educational personnel. In this chapter, the concepts of change within educational organizations are presented. A "conceptual map" to guide the reader's understanding of the change process in educational settings is described. Using this framework, observations of the change process in two Deans' Grants Projects are presented. The chapter also includes some guidelines to assist persons charged with managing change projects.*

With the passage of Public Law 94-142, the Education for All Handicapped Children Act, many people began to predict significant changes in the way handicapped children are educated in this country. They claim that mainstreaming handicapped children into regular classrooms also will cause important differences in the way that children who always have been educated in regular classrooms are taught. As a consequence of seeking changes in classrooms across the country, they recognize that the professional training now provided to school personnel, including regular classroom teachers, will need to undergo major revision.

Two aspects of the public mandate for mainstreaming pose great challenges for educators. The first challenge is the requirement that individualized educational plans (IEPs) be written and negotiated for all handicapped children requiring special education. The second is that the regular classroom must be made accessible to handicapped students who can profit from instruction in such a setting. Educators who accept the two challenges conceive of the major problem in teacher education as creating ways to *impart new skills* to regular teachers in order that they may prepare IEPs and accommodate more heterogeneous populations of children in their classrooms.

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We agree that regular classroom teachers will need to learn new skills, but we also believe that to conceive of the problem only in such a way will be to fall short of implementing the intent of legislative action and reaching the important goals of mainstreaming. Those intents and goals call for significant, far-reaching, and permanent changes in the fabric of American education. They call for changes in the roles, functions, culture, and structures of public schools. They call for similarly important changes in institutions of higher education that are charged with training and retraining school personnel. The major problem, as we conceptualize it, is creating new ways to *develop organizational arrangements* that can support the use of important new skills by educational personnel.

The thesis developed here is that the success or failure of any new program or thrust in education is not totally dependent on the skills of individuals who do the work; instead, success and failure are associated with characteristics of organizations, environments, and contexts in which the new program or thrust is carried out. The paper is organized into four sections. (a) The personal experiences that have shaped our view of schools and the processes of change within them are described. We also explain the methods that were used to study two Deans' Grants Projects. (b) A conceptual map is presented to explain the processes of change that become visible when educational organizations implement innovations. (c) We report what was learned by studying two Deans' Grants Projects: Eastern Montana College in Billings and the University of North Carolina at Chapel Hill. (d) There are discussed guidelines that may help persons who are charged with managing change projects that are part of the nationwide effort to mainstream handicapped children. An annotated bibliography on change in educational organizations is presented in Appendix A.

Perspective on Change

Much of the content of this paper is based on our experiences with the Program on Strategies of Organizational Change at the University of Oregon's Center for Educational Policy and Management, the Improving Teaching Competencies Program at the Northwest Regional Educational Laboratory, and, more recently, the Division of Teacher Education in the University of Oregon's College of Education. By working with many colleagues, we have helped to develop theories and technology that have come to be known as *organization development for schools*. We have worked with others to understand the processes of organizational change in schools, to help people carry out their educational missions more effectively and with greater satisfaction, and to prepare people and groups to facilitate change in educational systems of many kinds.

We have learned in our 10 years of experience as consultants and researchers that principals and other legitimate leaders can scuttle change efforts with apparent ease. Whole school faculties can fail to change classroom practices because their school organizations do not reward personnel who work together in new ways. We have seen faculties fail to implement team teaching because too few arrangements allowed organizational members time for exploring and managing their differences. The attributes of school organizations — not the attributes of individual members of those organizations — make the critical difference in whether significant and lasting change occurs in education.

Throughout this paper, we have incorporated these learnings into our perspective on change. We think the major problems faced in changing American education arise from the nature of schools as organizations. We do not accept the perspective in which basic problems are considered to stem from the lack of appropriate skills and attitudes in individual teachers, professors, and managers of change efforts. We assume that even well-intentioned and skillful people can fail if they are constrained by dysfunctional organizational arrangments.

The kinds of organizational arrangements that interest us most are those that encourage people to behave interdependently in the accomplishment of important tasks. We are interested, therefore, in the arrangements used to implement new teacher-training programs that merge goals from special and regular teacher education because the new programs require a high degree of task interdependence among members of what have been traditionally separate and autonomous groups. We are interested in how teacher educators reach consensus on the goals of a joint program and their agreements on the extent to which particular courses are related to the total program and to each other. We are interested in paradigms that guide program participants as they define problems and make decisions about the courses and research they will work on together.

The first author brought that personal perspective with him when he visited the Deans' Grants Projects at Eastern Montana College and the University of North Carolina. On those visits, he met with deans, department chairpersons, project directors, and faculty members from special education and general teacher education. Some of these people were very excited about the projects at their institutions; others saw the projects as "just another fad," or as a force that threatened them and education. He listened to people explain their concerns, rewards, jobs, and views of important issues.

By listening and watching, as at a theater production, he learned about the spirit and drama of the participants and the events in their lives. He was able to see how and where people spent their time, for how long, and with which other people and material resources they worked.

At the same time, he asked a lot of questions: what people liked and did not like to do; how their activities were related — if at all — to the institution's project; and their thoughts about what the project was doing and what it ought to be doing. His questions were directed to the clarification of the two projects so that he could understand them with minimal interference from his own conceptual blinders.

Processes of Educational Change

Some features of the conceptual map that guides our understandings of the processes of change in all kinds of educational settings are discussed in this section. The map can be applied to a college of education that offers inservice education to public school teachers, a public elementary school that educates some handicapped children in regular classrooms, or a department of secondary education that provides an undergraduate program to prepare high school teachers.

The conceptual map depicts certain realities of change processes in all those settings. One reality is human systems. Human is emphasized to indicate that we learn about educational change by looking at the behavior of people as they work alone or in groups; we do not learn about change by looking at a school's physical plant, policy handbook, or budget. System is emphasized to indicate that people do not behave in disconnected or independently determined ways. What one person or group does is affected by and affects other people and groups. The people and groups are interdependent; that is, no single person or group functions without reciprocal actions on the part of others.

Another reality of educational settings is that changes occur simultaneously at many levels. At one level, there can be changes in the ways that individuals behave toward one another: changes in the interpersonal interactions through which people communicate information and offer each other support.

At another level, there can be changes in the ways that groups of people function. In a university or college, changes can occur in the functioning of departments or divisions. In a school district, changes can be made in the functioning of a total school.

At still another level, there can be changes in the relations of groups: the merger of two departments, the creation of new kinds of classrooms, or the development of strategies to get people in one division talking more frequently with people in another division, for example.

Furthermore, there can be changes in the organization, system, or institution as a whole. Changes can occur in routines, procedures, and reward structures that affect all groups and individuals. For example, funding cutbacks at the University of Oregon were mandated by the legislature as a result of declining student enrollment. These cutbacks have caused the demise of at least one professional school, promoted stress within many departments as staffing patterns have changed, and produced interpersonal conflicts and failures in communications all over campus.

The conceptual map also depicts the reality that a change at one level requires change at all other levels. An example of the ripple effects of an institutional change through all levels of a university is given in the preceding paragraph. As an example from a public school setting, consider an effort to get regular classroom teachers and special education teachers to plan and teach together. As the members of the two role groups struggle to work together for the first time, students, administrators, and parents wonder what the new actions mean for them. Since groups under stress act differently toward each other, perhaps more suspiciously or competitively, the school develops new policies and reallocates space and resources. In short, the system as a whole, the relations among groups, and the functioning of each group changes as a consequence of new interpersonal behaviors by school members.

The conceptual map further depicts the reality that different groups in a single educational setting exhibit different degrees of readiness to change. At any time, each group has only a limited amount of energy and other resources and faces the need or impetus to change in many directions simultaneously. For example, at the University of Oregon, faculty members in secondary education currently are implementing a mainstream project, carrying out a Teacher Corps project, designing and implementing a new fifth-year pre-service program, planning new ways of delivering inservice to teachers in our state, and improving advising procedures that have been judged as less than commendable by the state's accrediting agencies. In many small work groups, the energies and resources are given at different times to different commitments. As a result, relations among work groups are sometimes competitive, sometimes cooperative, and sometimes quite unrelated.

The final reality depicted on the conceptual map is that significant, widespread, and durable change does not and cannot occur quickly. The literature of special education documents that it took more than 25 years to change from a few prototype classes for handicapped children to special classrooms in most districts across the country. Obviously, people who would change regular classrooms to provide less restrictive environments for handicapped children will become very discouraged if they expect the new changes to occur faster than that.

OBSERVATIONS OF TWO DEANS' GRANTS PROJECTS

In this subsection, we describe two Deans' Grants Projects and outline how the complexities of these projects have interacted with established organizational arrangements in the institutions. What we found to be true of the projects in Billings and Chapel Hill probably is true of other Deans' Grants Projects also, but readers must decide whether the generalizations match their own experiences enough to be useful. We do not pretend to have uncovered an all-inclusive set of generalizations; indeed, we suspect that we have come nowhere close to such comprehensiveness.

The observations are reported at a fairly high level of abstraction in order to protect the confidentiality in which information was given and to generalize the issues and advice that most likely would apply to other settings. Both projects had been highly successful in their first efforts; project staff members were extremely talented and a high level of support emanated from the dean's office in each institution.

1. Linkages between general and special education faculties were absent in both institutions. The question most frequently reported was, "How do we get general and special education faculties to offer an integrated program?" In both institutions, each faculty operated in almost complete isolation from the other. Offices were physically separated. The faculties did not share support staff, materials, equipment, or students. They did not regularly team-teach courses, go to each other's parties or conventions, conduct research jointly, or read each other's publications. Neither group knew much about what the other was doing. Resentments over funding, distrust of each other's motives, and competition between the groups had a long-standing history.

2. Both special and general education faculties were well linked to external resources in their respective areas. One prime example of the efficacy of linkages to people external to the institution involved our own institution. At the University of Oregon, the faculties of elementary education, secondary education, curriculum and instruction, and special education are administratively and physically housed together. However, not until the site visit to Montana was it learned that a very prominent member of Oregon's special education faculty had taken a job in another state. People in Montana predicted realignments and reassignments at Oregon and speculated about how Oregon's special education department would be reorganized. They had acquired their information at a recent conference on exceptional children, a conference that faculty members in regular education at Oregon had not attended. We had to go a long way to get information about people whose offices were less than 100 yards from ours. We heard many similar stories at both sites.

3. Protecting or extending one's turf was extremely important. We expected to find a few boundaries between special and general education groups and to find that the degree of the boundaries' flexibility and permeability was a crucial determinant of the extent to which collaboration occurred across groups. In both sites, however, numerous and well-developed boundaries were clearly perceived and strongly maintained by participants in both groups. Separate budgets and sources of federal funding, separate leaders and accountability structures, and separate meetings for important problem solving and decision making were orga-

nizational arrangements that maintained rather inflexible and impermeable boundaries between general and special education.

The boundaries were reinforced by widely held belief systems and images. There was a general belief among the special education faculties at both sites that they were more powerful, more respected, and wealthier than their counterparts in general education. At both sites, general education faculty members concurred that theirs was an inferior position. General education faculty members reacted to the situation in different ways: Some were envious of the bigger federal grants and federal offices; others rejected the special education groups as stand-offish or pushy.

4. Competition for the scarce organizational resources of time and human energy was definitely strong. For example, at the University of North Carolina, most members of the special education faculty worked only part time in special education. They constantly had to ask themselves how much energy they wanted to devote to general teacher education when it meant less time for providing leadership and services at their rehabilitation center, in other academic departments within the University, or in research projects. At Eastern Montana, the general education faculty members, in recent years, had responded to state mandates for new teacher-education programs in Indian education and drug and alcohol abuse and were anticipating new mandates to infuse sex equity and competency-based education into their curriculum. They were committed to all these changes but they felt powerless in the face of so many things to do. Their problem was well stated by one faculty member: "How are we supposed to squeeze this [mainstreaming] in among everything else?"

5. In both institutions, the role and place of the project and its staff were marginal. Projects and their staff members were housed physically and organizationally on the fringes of special education and definitely outside of general education. Project staff were expected to act as change agents for mainstreaming, but their organizational place and functions put them out of the mainstream of business in both special and general education. They saw themselves as outsiders who faced daily challenges to their legitimacy. They were perceived by others as "outsiders" who sometimes provided badly needed help but who also trespassed traditional boundaries and threatened sacred turfs.

6. Project leaders at both institutions viewed mainstreaming as an incredibly complex and far-reaching innovation. They knew that achieving the multiple goals of mainstreaming would require much more than helping a few public school teachers to learn a few new techniques. As advocates of a mission they took seriously, they knew that they were part of an effort that transcended their own project and their own institution. The scope and complexity recognized by project leaders served to energize them; they felt excited about being part of a grant change effort and

only occasionally were discouraged that others did not share their enthusiasm.

Guidelines for Managing Change

Some guidelines can be used to manage change efforts that are intended to make teacher education more responsive to the needs of handicapped children. The guidelines are not new or unique to this paper; additional evidence to support each one can be found in the literature on change in educational institutions. Furthermore, this list of guidelines is by no means complete; it is based on the principle that there are many ways to manage change and choosing the "best" way requires attention to discrepancies between current conditions and the goals of the innovation. As more is learned about the many experiments being tried to make teacher education more responsive to handicapped pupils, the list of guidelines surely will grow.

DESIGN A LONG-TERM PROCESS TO PROMOTE CHANGE

A generic process for bringing about change typically begins with activities to promote awareness and adoption of the innovation; however, the process is not considered complete until implementation has occurred and new actions have become regularized and institutionalized. There is no doubt that the early stages of awareness and commitment building are important. The degree of clarity and consensus about project goals and the manner in which change agents proceed in the very early stages of a change project are variables that are closely tied to the eventual success or failure of those changes. Berman and McLaughlin (1975), for example, studied 293 federally funded projects to promote change in education in 18 states. They found overwhelming evidence that projects designed to solve agreed-upon problems were much more likely to get started and continue than were projects designed by a few people to grab, opportunistically, for federal dollars.

It is also important, however, to avoid depleting all of a project's resources for encouraging awareness of and commitment to adopting the innovation because the stage of implementation can then present stumbling blocks. In other words, while it is effective to "light many fires" at the beginning of a project, a comprehensive macrodesign requires "reserving fuel" for the fires that must burn a long time.

BUILD READINESS TO COLLABORATE

An innovation cannot be considered a reality until people and groups are doing things differently than they did them before. A new reality is not insured because there is some grand strategy or national priority for it to happen. Instead, an innovation becomes a new reality only when it is introduced in a system that exhibits readiness to do things differently.

Hall and his colleagues (Hall, 1976) have made major contributions to our understanding of readiness for change by developing and testing a model for assessing stages of readiness in individuals. They have found that an individual is "ready" if the predicted outcomes of the innovation are well matched to his/her level of concern, and "unready" if the innovation is supposed to produce outcomes with which the individual has not yet become concerned.

Innovations that will make teacher education more responsive to the needs of handicapped children, however, are not innovations that even a very large number of "ready" individuals can turn into a reality. They are, instead, innovations that require new kinds of interpersonal interactions among people, new norms to support effective functioning by many work groups, and new organizational arrangements that stabilize and make permanent the new reality. In short, they are innovations that require readiness by a total organization.

Readiness to implement organizational innovations can be built. Evidence supplied by Bentzen (1975), Murray (1973), Runkel, Wyant, and Bell (in press), and Schmuck, Murray, Smith, Schwartz, and Runkel (1975) suggests the importance of beginning with activities to improve organizational processes (e.g., communication, problem solving, and decision making) before launching efforts to design new curricula, as a strategy for building organizational readiness. Premature attempts to accomplish curriculum change can decrease participants' feelings of efficacy and increase their concerns about following through with their colleagues. Providing opportunities to practice new norms and skills for collaboration at the beginning pays off later in more certain implementation.

STRENGTHEN PROCESSES FOR COMMUNICATION, PROBLEM SOLVING, AND DECISION MAKING

Improvements in the organizational processes of communication, problem solving, and decision making are important for two reasons: (a) Expectations that always have been placed on faculty members in institutions of higher education reward them for autonomous, individualistic, and independent behavior instead of for organizing activities in concert with others. (b) Most institutions of higher education have few channels for communicating across administrative units; their procedures for solving common problems in groups are ineffective; and they have few arrangements through which people who develop new programs and decide to initiate them can gain the commitment and participation of colleagues who must implement those decisions.

In other words, people associated with innovative projects in higher education frequently are faced with the need to build effective work groups and organizational arrangements where none have existed before. Some research suggests the kinds of processes and arrangements that are extremely important to build. For example, Brown (1974) studied communication on innovations in higher education and found that personal and face-to-face exchanges are more effective than impersonal devices (e.g., complicated handbooks or memos). His research suggests that processes and arrangements for communication, problem solving, and decision making ought to rely more on human than paper interaction. It is reasonably easy for most people to communicate information, solve problems, and make decisions when the message, problem, or decision can be handled in a cool and rational way. It is much more difficult for most people to deal with messages, problems, and decisions when things get "hot" and people's emotions are up front. Runkel and Bell (1976) suggested that since many of the important messages, problems, and decisions in a change effort are "hot," organizational arrangements for communication, problem solving, and decision making should be designed with this fact in mind.

SUPPLEMENT STRATEGIES THAT PRODUCE COGNITIVE CHANGE

Probably the most commonly used change strategies in educational settings are those that aim to produce cognitive change in participants. Examples of such strategies include conducting conferences at which distinguished speakers lecture, distributing brochures or other awareness-building materials, and offering seminars in the philosophy, theory, or rationale for making the change.

Sometimes, strategies to produce cognitive change work. They work particularly well when most of the persons who are resisting a change or have not fully committed themselves to it are doing so out of ignorance of what is expected of them, what the payoffs of their participation will be, or how to do what it is they are supposed to do. At other times, strategies that produce cognitive change in individuals are a waste of time. They do not work and may even backfire when the people who are not going along with the change are primarily concerned with the threats to their roles, status, or pride in past accomplishments.

Strategies to produce cognitive change, therefore, should be supplemented with strategies that (a) provide training and practice in new interpersonal behaviors, (b) encourage members of an intact group to tackle problems that give rise to strong emotional reactions, and (c) encourage groups in conflict to meet to clarify their disagreements and negotiate resolutions. Multiple strategies that aim to produce behavioral and procedural change in groups in addition to cognitive change in individuals work better than single strategies aimed at only one of the targets.

STRENGTHEN EXISTING REWARDS OR CREATE NEW ONES

If a change that requires a great deal of effort is to be accomplished, human energy must be made available to do the new work. Schmuck, Runkel, Arends, and Arends (1977) suggested that the only way to find energy is to "buy" it with many kinds of rewards. Building on the work of Atkinson and Feather (1966) and McClelland (1965), they postulated that people are motivated to invest energy in pursuit of achievement, affiliation, and power; that is, people invest more energy when they think they will experience success, friendship, and control over their own fates than when they predict they will experience failure, loneliness, and powerlessness.

A change effort can be designed to provide many kinds of rewards to participants. For example, helping faculty members to learn new skills, publish articles they want to write, or make presentations at important conferences can satisfy their motivations to achieve. Retreats, workshops, and meetings can be designed so that participants get to know each other better and, thereby, satisfy their motivation to affiliate. Delegating the responsibility to represent the project and appointing people to committees that are charged with important tasks satisfy participants' needs to feel influential and powerful.

Change projects should have built-in reward structures that allow all participants to experience more satisfaction in the new work than in the old. A change strategy that helps participants to take the first and often risky steps helps them to find rewards in new work and, gradually, creates conditions in which participants expend more and more energy to work with others and accomplish project goals. Strategies that ignore the risks inherent in change or the fact that people are not likely to persist in behaviors they find unsatisfying are not likely to capture necessary human energy.

START THE CHANGE PROJECT WITH HIGHLY VISIBLE ACTIONS

Those of us who work in institutions of higher education are notorious for talking more than acting on our words. Our training and respect for thoughtful inquiry often prevent us from making the decisions and taking the bold steps that would solve the critical problems we face. Our good intentions and careful plans are often insufficient when we fail to act on them.

The Dean's Grant Project at the University of North Carolina provided an example of an effective, action-focused strategy. Lodged in a setting in which special education and regular education faculties were physically separated, in which senior faculty members controlled most policy making and the dean, although supportive, was an acting dean, the project leaders moved directly toward making their project visible through action. Even before the project was funded, one project leader, who had an appointment in special education, approached a member of the general education faculty and suggested that they teach a class together. They designed and offered the class the next term. Afterwards, both reported feeling that their jointly taught class had been a great success. The professor from general education reported, "It took energy and courage for both of us. I had to do away with lots of things I had been doing. But I have to admit it was one of the most fun experiences I have had in teaching at this university."

Although their one-shot attempt did not bring about widespread and significant change in their institution, and even though their teaming by itself did not create a new and integrated teacher-education program, their public example of new ways to work together gave the project leader experience in general education and access to the people she ultimately had to influence. One of the general education faculty members called the project leader "a person who is willing to give of her time and expertise and to get into the trenches with the rest of us."

PROVIDE FOR FREQUENT MEETINGS AND STAFF DEVELOPMENT ONCE IMPLEMENTATION BEGINS

An earlier guideline suggested reserving some energy to move new programs into full implementation once awareness and commitment have been built. Several investigators, including Berman and McLaughlin (1975), Goodlad (1975), and Moore, Schepers, Holmes, and Blair (1977), have found that full implementation of any new project or program requires careful attention to staff development and frequent and regular meetings. They found that regular meetings give participants a chance to experience their new interdependence and help to solve small, day-to-day problems before they become too large to tackle. Regular meetings allow participants a forum for reassessing project goals, discussing unforeseen problems, or letting off steam.

Much more is known about staff development in public schools than in institutions of higher education. Faculty members of colleges and universities are more accustomed to giving workshops than participating in them. Berman and McLaughlin's work suggests that staff development activities are necessary and must be closely related to the goals of the project. Staff development activities that are relevant will increase the likelihood of successful implementation just as surely as irrelevant activities will do little more than waste project resources.

Both regular meetings and staff development activities can focus on curriculum materials to assist faculty members in their efforts to save time. Some materials may be retrieved from other sources and may be adopted without much modification; other materials can be adapted to fit local conditions; and still others must be developed from scratch to be useful. Involving participants in the work of adopting, adapting, and developing materials can be an effective way to focus meetings and staff development on tasks that are relevant to the project.

A Final Note

We wish to stress that the challenges to schools of education in regard to mainstreaming are of great magnitude. We are being asked to develop our capacities for helping to implement new programs for handicapped pupils and their teachers. Mainstreaming, however, is still a hypothesis that remains to be tested before its structure and adequacy can be asserted.

This set of circumstances requires that we respond with new programs for practitioners and manage our own processes of change. It also requires that we learn from our experience so that mainstreaming as an innovation and our own change efforts can, in the future, be based on empirically derived principles.

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Facilitating Institutional Change Using the Individual as the Frame of Reference

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ABSTRACT. *The individual users and nonusers of an innovation such as mainstreaming are the key to success or failure in change efforts. In this chapter, the concepts of individual Stages of Concern about an Innovation and Levels of Use of the Innovation are described. These dimensions can be used as diagnostic tools for facilitating change and evaluation tools for determining the degree of success. Sample data from a Dean's Grant Project are used to illustrate the concepts and processes described. The chapter includes descriptions of a set of implementation strategies and some guiding principles for change facilitators.*

Bringing about change in schools and colleges is a popular topic of conversation among policy makers, administrators, teachers, and professors, all of whom have their own opinions about the ease and difficulties, challenges and frustrations of change efforts they have experienced. The near-infamous studies of Paul Mort suggesting that it takes almost 50 years for educational innovations to reach nearly all schools are often cited, and frustrations over the slowness of change efforts and the failure of the latest great innovation tried are brought forth as testimony for the futility of attempting systematic change.

Meanwhile, professional educators, administrators, legislative bodies, and our consumers — the students and public — are insisting that more and faster changes occur in our educational institutions. More educational innovations and innovative processes are being developed and promoted. New forms of accountability, closer scrutiny of present-day practice, and general disappointment with the promise of education are leading to the inevitable requests and increasing demands for more change.

The mainstreaming movement is an excellent example of the present dilemma of society. Legislative bodies, professional educators, researchers, and educational administrators all became aware of a set of existing inadequacies and inconsistencies in our educational system, therefore, a change was required. In the case of mainstreaming, the required changes are on a large scale, affecting not only schools but teacher-education institutions across the country as well. Mainstreaming is one requirement affecting educational practice and necessitating some degree of change in nearly every educational institution.

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With mainstreaming, as with other changes, there is a great deal of uncertainty among administrators, faculties, and policy makers about exactly how to accomplish the desired change. The tendency always is to focus too narrowly on the change itself and not to give sufficient attention to the processes and procedures for institutionalizing the proposed change. It seems that viewing change as a process subject to rational decision making, anticipation, and planning occurs rarely. Rather, mainstreaming, or whatever the innovation, is simply assumed to be incorporated if one adds its name to the list of things that one is already doing.

This chapter describes some processes, procedures, and concepts that can be used to analyze the change process and to plan and design change efforts. These concepts are the result of extensive research at the Research and Development Center for Teacher Education at the University of Texas at Austin (supported by the National Institute for Education). The concepts result from extensive experience with the implementation of innovations and analysis of the change literature. The underlying premise behind this research, and this chapter, is that change can be planned and facilitated in personalized ways that will increase the effectiveness of the innovation and reduce the trauma that is experienced by the individuals involved. Unexpected events and problems will occur, but the skilled change manager can anticipate steps and productively facilitate the change process.

The concepts presented here cannot be implemented and used unless change facilitators are thoughtful people concerned about individuals. Whether the change is being facilitated by a dean, department chairperson, principal, superintendent, or an outside change agent, the responsibility for the implementation effort must be in the hands of a thinking being who will take time to analyze the change effort underway from the point of view of not only the innovation that is being implemented but the dynamics of the change situation as it affects each individual involved, as well.

The assumptions underlying the research at the Research and Development Center for Teacher Education are described first. Then a set of concepts are presented and interrelated by describing the Concerns-Based Adoption Model (CBAM). Two dimensions of the model are emphasized: (a) Stages of Concern About the Innovation and (b) Levels of Use of the Innovation. They are the key diagnostic tools for use by change facilitators. A series of implementation strategies are described next. These strategies have been identified through analysis of past efforts to implement innovations similar to mainstreaming (e.g., team teaching, Individually Guided Education) in teacher-education institutions. Several of these strategies are also frequently used in school settings. A brief case study is then presented to illustrate how the concepts that have been presented can be used to describe, plan, and monitor a change effort. The chapter concludes with a brief discussion of implications for school personnel who will be implementing mainstreaming or similar innovations.

Assumptions About Change in Educational Institutions

Underlying the research on the Concerns-Based Adoption Model (CBAM) are a set of assumptions (Hall, Wallace, & Dossett, 1973). Although several of these assumptions are common to many other change models, others provide a unique emphasis to CBAM. In presenting these assumptions and in the remainder of this chapter, there are frequent references to the "innovation." In thinking about these concepts and strategies, the reader should keep in mind that the word "innovation" is used generically to include both new processes and products. These innovations may be relatively small, such as regular change in textbooks, or very large and complex, such as the implementation of competency-based teacher education, Individually Guided Education, or mainstreaming. Our research indicates that the concepts and procedures described apply to many different types of changes, thus, the general term "innovation" is used rather than "mainstreaming" or the title of some other specific change.

There follow the key assumptions underlying CBAM:

1. *Change is a process, not an event.* The implementation of innnovations is not accomplished by the occurrence of a single event; rather, from the faculty's point of view, change is a process that may cover as long as several years. Time and experience are required to develop new skills and organize resources to use an innovation effectively. All too often, decision makers treat change as if it were an event made up of singular decisions, announcements, and proclamations that a change has been accomplished. However, from the innovation user's point of view, change is much more complex.

2. *Change is made by individuals first and then by institutions.* An institution cannot be described as having changed until the individuals within it have changed what they are doing in relation to the innovation. It is likely that key administrators will have to change first by openly supporting an innovation. Ultimately, however, the various individuals who are required to use the innovation will have to do so before it can be said that the institution as a whole has changed. Further, in managing and facilitating a change effort, it is critical to focus on the individuals at their various points and phases within the process of implementation

since they will be at different points and, therefore, will need different types of assistance.

3. *Change is a highly personal experience.* All too often, the personal side of change is completely neglected or omitted from consideration. For every person involved in a change, including change facilitators, there are personal perceptions, frustrations, and satisfactions. Failure to acknowledge and attend to the personal side of change is probably one of the key reasons that so many change attempts fail.

4. *Change entails developmental growth in feelings and skills in relation to the innovation.* A part of CBAM proposes identifiable developmental stages and levels that individuals are likely to move through in relation to a change. These stages and levels are described further in the next section.

Implications of the preceding assumptions are many. The people, rather than the innovation, probably should be the first point of focus for interventions. All too often, it appears that change facilitators become overly preoccupied with the technology and trappings of the innovation and neglect to attend to the people who will use it. Further, the identification of a series of stages and levels that individuals move through when implementing an innovation suggests that the change facilitator will likely need to use different interventions for different people at different times. This implication leads to another assumption.

5. *The change facilitator must function in highly adaptive, systemic, and personalized ways if change is to be facilitated most efficiently and effectively for the individuals and for the institution as a whole.* Change facilitators must constantly assess the state of the scene, anticipate the potential consequences of actions across the system, and adapt their actions accordingly. How all these assumptions and potential implications are interrelated in the model is described in the next section.

The Concerns-Based Adoption Model (CBAM)

CBAM was developed following approximately 10 years of extensive field experience and study of change attempts. One source of ideas was the research of Frances Fuller, who had studied the "concerns" of preservice and inservice teachers. Other parts of the research were drawn from the literature on change (e.g., Havelock, 1971; Miles, 1964; Rogers & Shoemaker, 1971). Still other parts of the model are based upon the clinical experiences of the authors who had worked extensively as both school-based and higher education-based internal and external change agents.

In sum, CBAM views the change process within formal organizations as entailing the individual's moving through seven identifiable *Stages of Concern About the Innovation* and eight *Levels of Use of the Innovation*. The change facilitator's function is (a) to diagnose at what stage of concern and level of use the individual is and (b) to adapt his/her interventions accordingly. This personalized activity takes place within the context of the whole organization and is limited to whatever resources the change facilitator has available.

Recent research at the Texas R&D Center has focused on initial verification of the Stages of Concern and Levels of Use. A 35-item questionnaire and an open-ended concerns statement have been developed to measure Stages of Concern. A focused interview procedure has been developed to measure Level of Use. These measures have been used to review research studies, and change facilitators have used them in a variety of clinical settings. Findings from these various activities are described briefly in the following sections.

STAGES OF CONCERN ABOUT THE INNOVATION

Fuller (1969), in her pioneering research on the concerns of student teachers, proposed that those concerns moved through four levels, from *unrelated* to *self* to *task* and, ultimately, to *impact* concerns.

Unrelated concerns are those that do not deal with the teaching task or teaching activities at all. These concerns involve other parts of the teacher's life space, including his/her social life and other college classes.

Self-concerns focus upon the effect of teaching upon the teachers themselves. These concerns are not student oriented; they deal with how the teacher personally feels about and perceives his/her developing role as a teacher.

Task concerns, as the name implies, focus on the management and logistics of teaching. They include, typically, concern about completing all the lesson plans and other time-related and managerial aspects of the teaching act.

Ultimately, Fuller found that student teachers, and especially experienced inservice teachers, begin to express many types of *impact concerns*. These concerns focus directly on the teaching-learning act: what children are learning and what the teachers themselves can do to improve their professional competence.

Recent research (Hall, 1976; Hall & Rutherford, 1976) has demonstrated that the concept of concerns proposed by Fuller also applies to individuals who are involved in change. Seven Stages of Concern About an Innovation have been identified; they are described in Table 1.

As Fuller found with student teachers, innovation users tend to progress from lower Stages of Concern to higher Stages of Concern during the implementation process, assuming that the innovation is a worthy one and the implementation effort has been effectively facilitated.

Research has further shown, however, that people do not experience one Stage of Concern at a time; rather an individual has a concerns profile. There are concerns at all stages, but some Stages of Concern are

Table 1

Stages of Concern About the Innovation*

6 REFOCUSING: The focus is on exploration of more universal benefits from the innovation, including the possibility of major changes or replacement with a more powerful alternative. Individual has definite ideas about alternatives to the proposed or existing norm of the innovation.

5 COLLABORATION: The focus is on coordination and cooperation with others regarding use of the innovation.

4 CONSEQUENCE: Attention focuses on impact of the innovation on students in his/her immediate sphere of influence. The focus is on relevance of the innovation for students, evaluation of student outcomes, including performance and competencies, and changes needed to increase student outcomes.

3 MANAGEMENT: Attention is focused on the processes and tasks of using the innovation and the best use of information and resources. Issues related to efficiency, organizing, managing, scheduling, and time demands are utmost.

2 PERSONAL: Individual is uncertain about the demands of the innovation, his/her inadequacy to meet those demands, and his/her role with the innovation. This includes analysis of his/her role in relation to the reward structure of the organization, decision making and consideration of potential conflicts with existing structures or personal commitment. Financial or status implications of the program for self and colleagues may also be reflected.

1 INFORMATIONAL: A general awareness of the innovation and interest in learning more detail about it is indicated. The person seems to be unworried about himself/herself in relation to the innovation. She/he is interested in substantive aspects of the innovation in a selfless manner such as general characteristics, effects, and requirements for use.

0 AWARENESS: Little concern about or involvement with the innovation is indicated.

more intense than others. For example, an individual who is first hearing and learning about an innovation generally will have most intense concerns at Stages 0, 1, and 2; concerns will be most intense about "what is it" (Stage 1, Informational) and "what does it mean for me" (Stage 2, Personal). This concerns profile is presented as the solid line in Figure 1.

The dashed line in Figure 1 represents the concerns profile that is typically found with early users of an innovation. Their most intense concerns focus on management of the innovation (Stage 3). Their Stage 1 and 2 concerns decrease in intensity while their impact concerns (Stages 4, 5, and 6) gradually increase in intensity. Early users of an innovation typically are most concerned about the time, logistics, and task requirements related to use of the innovation.

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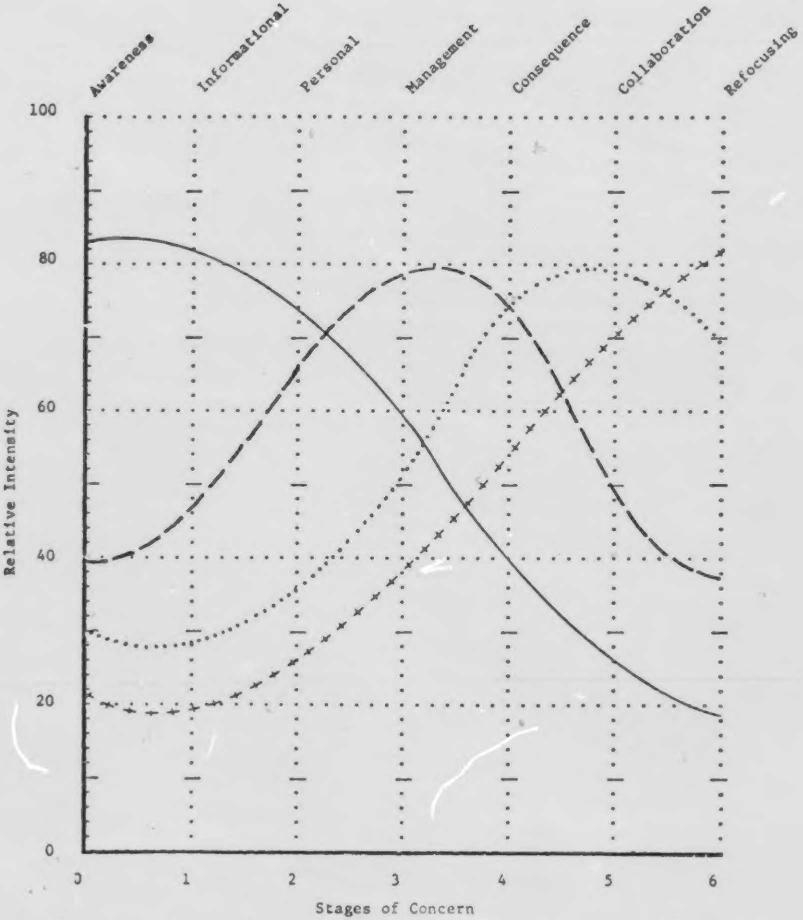
*Original concept from G. E. Hall, R. C. Wallace, Jr., & W. A. Dossett. A developmental conceptualization of the adoption process within educational institutions. Austin: Research and Development Center for Teacher Education The University of Texas, 1973.



Key: ———— = Nonuser .... = Experienced User

- - - - - = Inexperienced User + + + + + = Renewing User

Fig. 1. Hypothesized development of Stages of Concern.

It is not until the individual becomes more experienced and personally comfortable with and sophisticated in the use of the innovation that he/she begins to have various types of impact concerns. The last two profiles in Figure 1 represent degrees of more experienced or impact-concerned individuals. Experienced and most effective innovation users tend to have intense Stage 4, 5, and 6 concerns with Stage 0, 1, 2, and 3 concerns of less intensity.

Depending on the individual, the innovation, and the institution, any one of Stages 4, 5, and 6 will be most intense at a given time. At Stage 4, individuals are most concerned about how they, by themselves, can have more impact upon the innovation, while at Stage 5, the concern shifts to collaborating with other innovation users or colleagues in order to increase impact. Stage 6 concerns focus on changes that could be made in the innovation or, perhaps, replacement of the innovation with something that would work better. Incidentally, our research suggests that individuals are not likely to have high Stage 5 and 6 profiles unless there is institutional support for those concerns.

To date, research on the concept of Stages of Concern has demonstrated that they can be reliably and validly measured (Hall, George, & Rutherford, 1977) and that with different innovations, the rates of development and movement are different through the Stages of Concern. The concept, therefore, is proposed as one key tool for diagnosing, monitoring, and facilitating a change effort.

LEVELS OF USE OF THE INNOVATION

Levels of Use (LoU) is the second key dimension of CBAM for viewing individuals as they are involved in implementation. Stages of Concern focus upon the feelings and perceptions of the individual while Levels of Use describe the individual's actual performance and behaviors in relation to the innovation. There have been identified eight Levels of Use that are demonstrated by individuals as they implement an innovation. These Levels of Use are presented in Table 2.

The Levels of Use dimension ranges from nonuse, where the individual is not doing anything in relation to the innovation, to mechanical use, where the individual makes adaptations and adjusts the use of the innovation to make it more efficient and usable for him/her, to various types of "refinement," where adaptations are made in the innovation for the purpose of increasing student outcomes. The Levels of Use have been operationally defined in what is called *The Levels of Use Chart* (see Hall, Loucks, Rutherford, & Newlove, 1975).

Several striking implications that are important for change facilitators come out of Levels of Use research. One implication is that it is possible to find individuals within so-called "innovative" schools and colleges, where an innovation is supposed to be fully implemented, who are at Level of Use 0, *Nonuse*. We also have found in several research studies that in so-called control groups, who, supposedly, are not using the innovation or treatment, individuals can be found who, in fact, are using the innovation (Hall & Loucks, 1977).

Another implication of Levels of Use for change facilitators is illustrated in Table 3. More individuals are at Level III (Mechanical) use in the first year of use than in subsequent years, and the number of indi-

Table 2

Levels of Use of The Innovation*

0 NONUSE: State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

I ORIENTATION: State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.

II PREPARATION: State in which the user is preparing for first use of the innovation.

III MECHANICAL USE: State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet use needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.

IVA ROUTINE: State in which use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.

IVB REFINEMENT: State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.

V INTEGRATION: State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.

VI RENEWAL: State in which the user reevaluates the quality of use of the innovation, seeks major modification of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

viduals at Level IVA (Routine) and above increases after the first year. Thus, it would seem important for managers of the change process to anticipate that in implementing mainstreaming or other innovations, many individuals are likely to be at a Mechanical Level of Use during the first cycle of implementation.

A further finding from the research was the establishment of the IVA Routine Level. Analyses of the first several studies that were based on stratified samples very quickly demonstrated that a surprisingly large percentage of the users of innovations were using it in a "routine" way. They were not making adaptations or changes in what they were doing. It now appears that roughly 40-50 percent of the users of an innovation in a stratified sample will be at this level.

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*Excerpted from The LoU chart: Operational definitions of Levels of Use of the Innovation. Austin: Research and Development Center for Teacher Education, The University of Texas, 1975.

Table 3

Distribution of Users Within Each Level of Use by Years of Experience for Two Innovations, Fall 1974

Years of Experience with Teaming

Levels of Use	1st Year	2nd Year	3rd Year	4th Year or More
III	41%	16%	11%	10%
IVA	51%	80%	73%	72%
IVB	6%	0%	9%	10%
V	2%	4%	7%	3%
VI	0%	0%	0%	5%
	N = 87	*N* = 25	*N* = 70	*N* = 101

Years of Experience With Modules

Levels of Use	1st Year	2nd Year	3rd Year	4th Year or More
III	22%	10%	11%	15%
IVA	40%	54%	37%	37%
IVB	22%	21%	33%	15%
V	12%	10%	11%	30%
VI	4%	5%	7%	4%
	N = 50	*N* = 39	*N* = 27	*N* = 27

Excerpted from G. E. Hall & S. F. Loucks, A developmental model for determining whether the treatment is actually implemented. *American Educational Research Journal*, Summer 1977, 263-276.

THE CONCERNS-BASED CHANGE FACILITATOR IN THE CBAM CONTEXT

In viewing Stages of Concern and Levels of Use within the totality of CBAM, the change facilitator, whether the dean, another administrator, or a designated change agent or implementation agent, has the role of determining *which* resources to provide and *when* to facilitate the implementation effort. One way of representing the role of this facilitator diagrammatically from the concerns-based perspective is presented in Figure 2.

The concerns-based change facilitator works in a diagnostic and prescriptive mode. He/she first diagnoses where the individuals are by assessing their Stages of Concern and Levels of Use. Using these diagnostic data, the change facilitator then identifies various resources to deliver. These resources may be material from his/her professional library, the presentation of a formal workshop, or dollars. The delivery of the resources is an intervention that is designed to be relevant to the concerns of the recipients and to facilitate their implementation efforts.

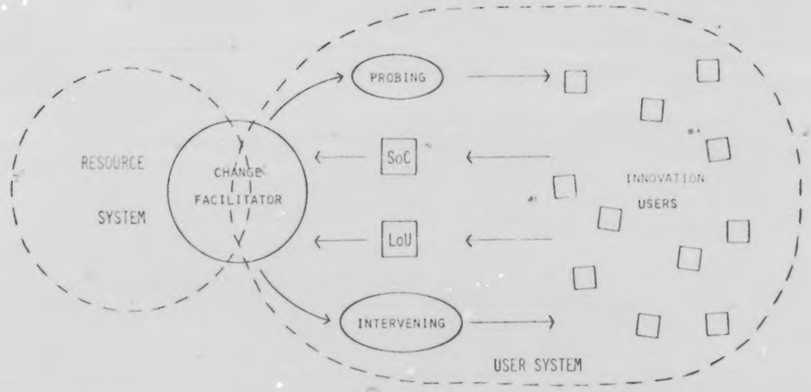


Fig. 2. The Concerns-Based Adoption Model as applied by a facilitator with limited resources.

The concerns-based approach is a diagnostic-prescriptive one that takes place largely within the context of the school or college where the change is occurring. Therefore, it is important not only that the change facilitator be a good diagnostician but that he/she be a highly *adaptive* person as well. Just as an organism adapts to its environment by changing its color or adjusting its hormone or enzyme levels in response to stimuli, so the change facilitator must constantly adapt his/her behavior according to the diagnostic data and deliver resources in accordance with the latest available information, while constantly anticipating how the participants will respond to the assistance.

In addition, the change facilitator must be *systemic* in his/her view of the change efforts. Mainstreaming is likely not to be the only innovation that is being implemented within the larger institutional context. Interventions that are made relative to mainstreaming may have counterproductive effects with regard to some other implementation efforts. Therefore, the change facilitator must anticipate that interventions made with Professor X with regard to mainstreaming may have completely unexpected effects on Department Chairperson Y over on another part of the campus. The change facilitator somehow must juggle all these dimensions and anticipate the consequences of each action on the target individual(s) as well as on other parts of the organization.

In total, then, as presented in Figure 2, the function of the change facilitator, assuming again an appropriate innovation, is one of working in an adaptive, systemic way to provide the most useful resources at the right time in personally relevant ways.

STRATEGIES FOR IMPLEMENTATION

Since it is assumed with the concerns-based approach that planning for change is a possible as well as an important step for successful change efforts, thought should be given to some of the over-all strategies that can be employed. For this discussion, a strategy can be thought of as an interrelated set and sequence of activities to facilitate the implementaton of an innovation. Some kind of strategy exists in all change efforts. Unfortunately, most strategies seem to have happened rather than to have been planned.

Any strategy has inherent advantages and disadvantages. Contextual variables and characteristics of particular innovations make some strategies more advantageous than others. At the beginning of the change attempt, the manager of the change process should give thought to exactly which strategy or set of strategies he/she will employ and consider the consequences of each in terms of the Stages of Concern and Levels of Use of the individuals, system implications, and the requirements for implementation support.

In this section, 10 possible implementation strategies are described briefly; the implications, advantages, and disadvantages for each are suggested. No one strategy in and of itself is a complete "game plan" for an implementation effort, and none is without disadvantages as well as advantages. The point is that strategies should be consciously selected, and the change facilitator needs to anticipate the various implications of the strategy chosen. The 10 strategies have been observed in both school and college settings, although teacher-education examples of each are used as illustrations.

1. *The Bootstraps Approach*

This particular strategy is all too frequently found in higher education. The over-all plan begins with the dean and/or several members of the faculty deciding that, with no additional resources or support, a particular innovation will be implemented. The catch is that not only are no resources available but everything that is presently being done must continue. The assumption seems to be that more energy is available in the existing resource system of faculty time, skill, and interest. It is further assumed that change does not cost.

The potential advantage of the Bootstraps Approach is that the implementation effort should not cost a great deal in terms of hard resources ($). However, it has an inherent weakness in that the users may not have the time and resources it takes to implement the change fully, thereby endangering the whole effort. (The often-heard statement, "I could build better modules than those in the middle of the night," has near-zero predictive validity.) Further, the Bootstraps Strategy in practice calls on the same faculty members and staff who already are doing the most. In the long run, the Bootstraps Strategy burns out many of the most potentially effective faculty members and administrators.

In terms of concerns, the Bootstraps Approach arouses a great deal of initial Personal (Stage 2) and Management (Stage 3) concerns: "Where am

I supposed to find the time for this?" Personal concerns are exacerbated further if no clear statement of priorities is issued by the administration.

2. *The Sabbatical Leave Strategy*

The Sabbatical Leave Strategy was used extensively in the TTT (Training Teachers of Teachers) grants of the late 1960s and early 1970s. In this strategy, a member of the faculty is "selected" to spend a sabbatical leave at an institution that already is using the innovation. The assumption is that the faculty member will become tooled-up in the use of the innovation and, upon return to his/her home institution, will provide resident expertise for the change effort.

The potential advantages are that the home institution is able to develop in-house expertise, establish closer ties with another institution, and keep the costs reasonable with, at the most, the investment of one faculty member's time.

There are several potential disadvantages, however. Observation of this strategy in practice indicates that, in general, the faculty member who is selected to go on sabbatical leave is likely to be the one that the institution can most afford to have gone. Chances are that this faculty member is not the one who will be most credible upon his/her return, nor will he/she be the one who is most able to acquire the skills that are needed during the visit to the other institution. Further, unless other strategies are employed at home while the potential change agent is gone, the back-home faculty members are not apt to accept the newfound expertise when he/she returns from the "vacation."

3. *The Superstar Strategy*

The Superstar Strategy has been employed quite successfully by several teacher-education institutions implementing competency-based programs. The basic design of the Superstar Strategy is to hire one or more young, bright, hustling, highly competent, productive, upward-bound Ph.D.s.

These "superstars" come to the campus bringing with them the expertise needed to implement the innovation. They also bring ties to the national movement in the area of the innovation and ties back to the prestigious institutions where they were trained.

One potential disadvantage of the Superstar Strategy is that superstars are not institution bound; they are, instead, profession oriented and are apt to move, in four or five years, to the next step in their climb up the professional ladder. Further, many superstars are not skilled in working with other faculty members. The result may be an "us-versus-them" phenomenon wherein the superstars may establish a program which the regular line faculty do not own, since it was developed by "them" and not "us." A further potential disadvantage is that if several superstars are hired, a rivalry or open warfare may develop among them;

as they are highly competitive and striving individuals, they may end up competing with each other in counterproductive ways.

4. *The Experimental Program*

Experimental programs have been a very frequently practiced strategy in teacher education. A select few of the faculty are given special permission to develop an experimental program and operate it alongside the regular program.

The potential advantages include the fact that not all faculty have to go through the struggles, trials, and tribulations of developing the program. The bugs can be worked out in an experimental program and then a more efficient program can be institutionalized at a later date.

The potential disadvantages include the fact that the experimental program may not get institutionalized. In many cases, the experimental program is developed, establishes a reputation of its own, and is frequently visited by educators who are interested in learning about it. However, the regular program remains untouched. In one case, the experimental program received national and international fame, but for the eight years of its life it remained in a refurbished house on the edge of the university campus while the regular program went on unaffected. Ownership of the program is also a potential problem. The administration and the program staff need to make certain that they are constantly reaching out to the regular faculty members to involve them in the development and evolution of the experimental program.

5. *The Decree or Mandate*

Although classified as a strategy, this approach occurs more as an event with delivery of the word. It is a common occurrence in schools, and its frequency appears to be increasing in higher education. With this strategy, a change is announced: "As of September, the teacher-education program will be competency based." "As of 1978, mainstreaming will be a part of both elementary and secondary teacher-education programs."

Decrees and mandates have several advantages. (a) The change is "accomplished" instantaneously and the faculty members are aware of administrative priorities so that confusion about how the faculty should be investing its time is less likely. (An interesting hypothesis that needs an empirical test is that in higher education, the decree/mandate may be one of the most effective strategies, given the present liberal operational definition of academic freedom.) The disadvantages of the Decree/Mandate Strategy are that it does not take into account the assumption that change is a process rather than an event. Decrees, especially those without the provision of additional resources, result in the faculty's not being able to accomplish all that is expected. In several cases, administrators who have made decrees have later been fed half-truths and misinformation and, thus, they are not fully aware of the lack of full implementation of their decrees. "Oh yes, we have been competency based for several years."

6. *Hit-and-Run Workshops*

Hit-and-run, or "God-bless-you," workshops are the norm in many school systems; they are not so common in higher education because so few faculty members seem to participate in and see the need for inservices (although this attitude, too, is changing). The general format for this strategy is the one-to-five-day workshop in which all the wonders and trappings of the innovation are introduced, normally by a consultant from far away (very far away). At the end of the "training," the consultant heads for the airport saying, "God bless you! Good-bye." The institution and the users are left to implement the innovation using the discovery approach. That is, during the time of Mechanical Use (LoU III), the faculty and the administration are left on their own to discover both the problems and their solutions.

The advantage of this strategy is that the faculty gets some training and some knowledge and skill development before it begins to use the innovation. The disadvantage is that follow-through during the implementation process is not provided, and the faculty members use a great deal of energy attempting to discover for themselves what the problems and solutions are. At many institutions, recent innovations, such as modules, IPI, and IGE, have not lasted because of the lack of follow-through hand-holding during implementation.

Good-Time Workshops. Good-time workshops (which are often hit and run as well) are also frequently employed in school settings. The strategy here is nonexistent. The sole goal of the good-time workshop is high happiness coefficients for the participants on the end-of-workshop evaluation forms. Change is not expected of administrators, workshop participants, or the trainer. In its purest form, the honorarium received by the leader of the good-time workshop is prorated, based on the value of the happiness coefficients. Good-time workshops frequently are practiced in states and institutions where inservice is mandated and a number of days per school year are set aside for it, but there is little or no expectation of actual change in the classroom.

7. *The Pennsylvania Contingent*

The Pennsylvania Contingent is usually based on changes in the administrative structure. This strategy begins with replacing the unit manager — the dean or superintendent — by someone from Pennsylvania (or wherever). The new administrator immediately recognizes that there is a leadership gap and that he/she needs reinforcements, so one of his/her former colleagues (from Pennsylvania) joins the administrative staff as an assistant dean/superintendent. The assistant dean's wife needs a faculty appointment, and an old colleague from a professional association is also brought in as a senior faculty member in one of the problem departments. The Pennsylvania Contingent normally increases in number very quickly.

The potential advantages of the strategy include the addition of new resources, leadership, and ideas to the institution. The potential disadvantages are that the members of the Pennsylvania Contingent talk only to themselves about all the problems of the institution and how they will cure all the ills, while the regular faculty sits on the side saying, "We'll be here long after they're gone." This strategy also can result in an "us-versus-them" phenomenon that will further reduce chances for successful change.

8. *The Multiple Adoption Design (M.A.D.)*

The Multiple Adoption Design is most often practiced in school systems. In higher education, one innovation at a time is plenty. With the M.A.D. Strategy, an attempt is made to implement many different innovations concurrently. The M.A.D. Strategy can be readily observed in Title I schools that have "innovative" superintendents, and in suburban school districts where there was a need to appear progressive in the 1960s and a return to the basics in the 1970s.

The consequences of this strategy are several: One (normally seen as an advantage) is that many different innovative efforts can be listed as "in use"; thus the school systems are labeled "innovative." A second, less advantageous, consequence is that users of the innovations experience "system overload" in which they have more to implement than they can possibly manage because, once again, change is a process and not an event. Thus, as new innovations are added each year, the overload on the teachers, classrooms, and children quickly reaches a point of diminishing returns.

9. *The Wonder Woman/Superman Strategy*

This strategy is more frequently found in higher education. The plan here is to select one faculty member to become the key leader of the change effort. This person can be either a senior faculty member, a young faculty member, or a new person who is brought in to encourage the change effort. Using young or new faculty members has a potential disadvantage in that not only will senior faculty see them as lacking credibility but, also, promotions and tenure may be jeopardized. Further, new personnel will be unaware of all the intricacies and politics of the institution and may not be able to work so effectively in the change attempt.

Other potential disadvantages of this strategy are that the change leader(s) may become overloaded and that the administration may not publicly back them, leaving them on their own to implement a change that they are held accountable for but do not have the authority or the resources to make the faculty follow through on.

10. *The Matrix Management System*

This strategy can have dynamics similar to those of the Wonder Woman/Superman strategy. The change facilitator may strive to get faculty resources from administrators of different departments who do not see the innovation as a departmental priority. Thus, the change facilitator is left out in the cold, filling in with weaker faculty and/or lacking the resources to do the job.

However, this strategy can be very effective when a credible faculty member is used, since the faculty member has enough time to do the handholding and provide the supportive activities required during implementation. The strategy also can result in many faculty members having ownership in the innovation, and the input to them can be individualized and personalized. The following case study illustrates many of the potential advantages of this strategy.

A Mainstreaming Case Study

As part of the preparation for writing this chapter, a site visit was made to one Dean's Grant Project. The particular institution selected was the University of Missouri-Columbia which, at the time of the visit, had had a Dean's Grant for approximately two years. The project is referred to as Project PREME — *Preparing Regular Educators for Mainstreaming the Exceptional*. (The PREME Project is described in part in Section 3 of this book.) The site visit was made during May 1977.

The design of the site visit entailed collecting Stages of Concern and Levels of Use data as the two key diagnostic dimensions for assessing the extent of faculty involvement with the Dean's Grant Project at the time of the visit. In addition, project publications, including newsletters and reports, were studied prior to the visit.

Stages of Concern were assessed with the 35-item Stages of Concern Questionaire, while Levels of Use were assessed through a focused interview procedure. Prior to the site visit, the Stages of Concern Questionnaire was completed by the faculty and administration of the College of Education; the individuals were asked to respond in relation to their present concerns about Project PREME. Of the 157 Stages of Concern Questionnaires distributed, 75 were returned in time for processing before the site visit.

The site visit itself consisted of two days of interviews with faculty, administrators, and students. An express request was made that the individuals to be interviewed cover a broad range, including persons who were active and inactive, relative to the project, and some who were resistant to the project. A semi-formal Levels of Use interview was conducted with seven administrators, including Dean Bob Woods; the Project Coordinator, Dr. Judith Grosenick; 12 faculty members; and four students. An over-all Levels of Use assessment was made for each person interviewed, with particular emphasis placed on the amount of his/her knowledge of Project PREME activities. The interviewees also were asked to identify key components and elements of Project PREME of which they were aware or had been involved with.

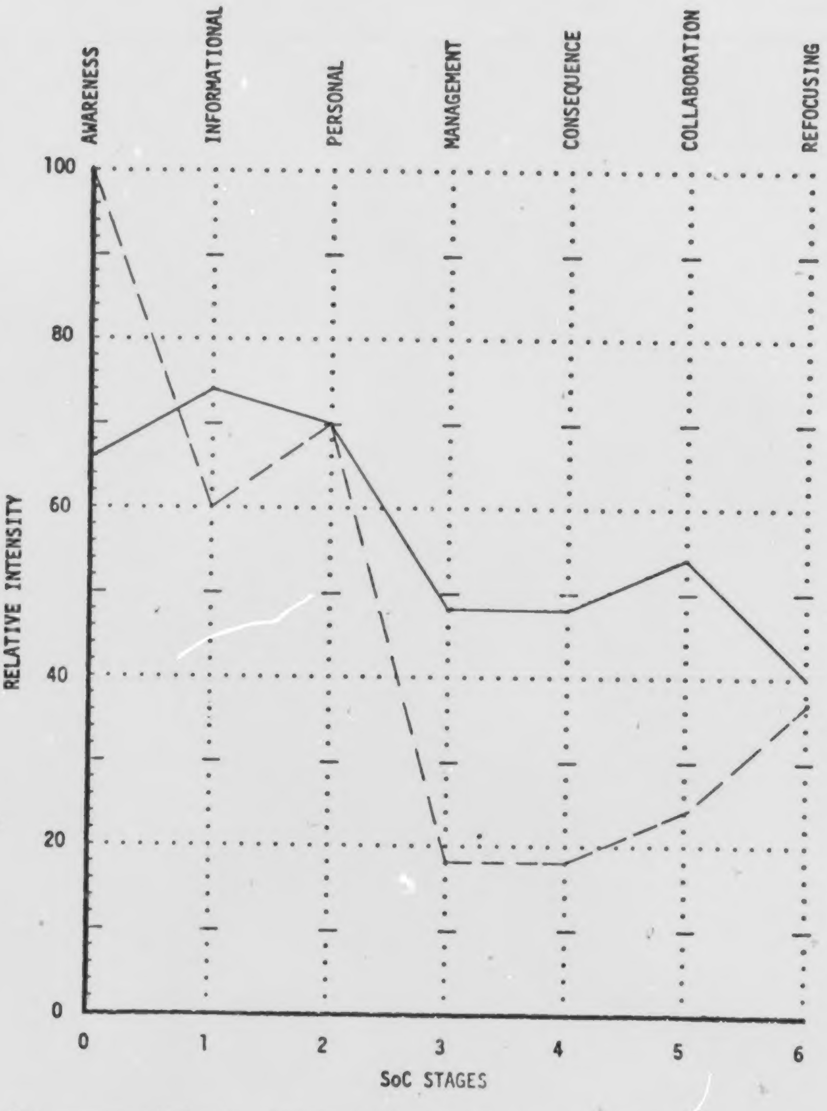
Briefly, the primary change facilitator for the project, Dr. Judith Grosenick, an established faculty member in the Special Education Department, was assigned 75% time to the project, teaching 4-6 credit hours per semester in the experimental program and working with college faculty and administrators relative to mainstreaming. She serves in this role with full and public backing by Dean Woods. The key administrators have been involved in the project since its early days through the establishment of an Advisory Committee.

The best name for the over-all strategy of the project to date is *Information Saturation*. The major goal, as expressed by Dean Woods, Dr. Grosenick, and others, has been to create initial awareness of and interest in the concept of mainstreaming among the faculty and administrators. They used many different activities and opportunities within the over-all Information Saturation plan. The potential for involving interested faculty and administrators has been present at all times.

A key advantage has been that Dr. Grosenick's style is very personal and friendly. She is highly respected by the faculty and administration and was well established prior to the beginning of the project. Further, the dean steadily supports the effort. He has the goal of integrating the concepts of mainstreaming into many courses clearly in mind, and he expects that all courses will pay some attention to mainstreaming by the end of the project.

The Stages of Concern and Levels of Use data, which have been collected, are summarized in Figure 3 and Table 4. In the concerns profile, in Figure 3, the solid line is typical of a nonuser population; however, several subtle positive strengths in this concerns profile are worth noting. The Stage 0 (Awareness) score for the group as a whole is slightly lower than the Stage 1 (Informational) and Stage 2 (Personal) scores. Further, the Stage 2 score is slightly less than the Stage 1 score, and the Stage 6 score "tails off," pointing downward. Contrast this concerns profile with the broken line, which is a typical concerns profile of individuals who are not open to or supportive of an innovation. The Stage 0 score is much higher than the Stage 1 and 2 scores. The Stage 2 score is also higher than the Stage 1 score, and the Stage 6 score does not tail down, but up.

Clinical interpretation of these two concerns profiles suggests that the Project PREME concerns profile represents a group of knowledgeable, positively interested, and open nonusers of the innovation. The higher



Key: ——— =University of Missouri-Columbia faculty and administration

- - - - - = Example of resistant nonuser

Fig. 3. Stages of Concern profile for the University of Missouri-Columbia faculty and administration as contrasted with a resistant nonuser concerns profile.

Table 4

Levels of Use Ratings for the University of Missouri-Columbia Faculty and Administrators Relative to the Innovation of Project PREME

	Levels of Use								
	Nonuse 0	Orientation I	Preparation II	Mechanical Use III	Routine IVA	Refinement IVB	Integration V	Renewal VI	Total
Number of Individuals	4	6	0	1	3	1	3	1	19

scores in Stages 4, 5, and 6 suggest, as is true at the University of Missouri-Columbia, that the sample is made up of many users as well as nonusers. The broken-line profile is an example of high personal concerns and of a feeling of "I have a better idea than yours." This concerns profile would indicate potential resistance to the innovation.

The Levels of Use distribution (Table 4) reflects that both nonusers and users were interviewed, with four individuals at Levels of Use IVB or above. "Users" in this context means that these individuals were actively engaged in project PREME activities and in using project resources. The largest group, however, is concentrated at Level of Use I, Orientation, indicating that the behaviors are those of nonusers of the innovation who are looking at, thinking about, and considering the innovation *but* have not yet decided to commit themselves to using it, that is, to move to Level of Use II, Preparation.

Table 5 lists different elements of the Information Saturation Strategy that were identified by the interviewees. Note the wide range and diversity of elements that were used during the two years. They range from an Advisory Committee of key administrators, to the development and publication of "Project PREME Prints" (a newsletter), to faculty retreats, to a series of five inservice seminars around special education concepts presented by Special Education Department faculty, to development of a special experimental program for undergraduate teacher education majors. In other words, the Information Saturation strategy has been backed up with many different activities using different kinds of formats and media, which were spread across the two years of the project. Note that Dr. Grosenick herself is identified as one of the key elements and sources of information. These data are indicators of the positive effects of the strategy.

In summary, one's impressions of the College of Education at the time of the site visit is that the faculty members have become fully aware

Table 5

Frequency of Interviewee Nomination of Information Saturation Activities Employed in Project PREME

Frequency	*Activity*
6	PREME Program
4	Advisory Committee
3	Competency Survey
10	Special Education seminars for faculty (Fall 1976)
7	Kansas City 3-state working conference
8	PREME Newsletter
9	College of Education faculty retreat (January 1977)
2	Retreat follow-up questionnaire
1	State certification law
6	Activities of Project Coordinator (visits, classes, meetings, etc.)
7	Campus Inn faculty retreat (1½ years ago)
2	Department Chairmen Discretionary Fund (just happened)
1	Dean's memo
2	Film strip tape presentation about Public Law 94-142

of the concept of mainstreaming and are genuinely concerned about it. They see it as a natural and logical activity that should be incorporated within their courses, with very little resistance. Actually, there is a great deal of expectant interest in and beginning activities toward accomplishing this goal. The Information Saturation Strategy has worked well. The critical issue at the time of the site visit was, "What will happen to all of those faculty at Level of Use I, Orientation?" Will they move to Level of Use II and on to use of the mainstreaming concepts, or will they regress to Level of Use 0, Nonuse?

Research data from another teacher-training institution, identified as University A, illustrate the dilemma faced by the Project PREME change facilitator. Levels of Use data from University A are summarized in Figure 4. At the beginning of a two-year longitudinal study, the faculty members were being introduced to instructional modules. In the first year, many individuals moved from Level of Use 0 to Level of Use I, where they stayed during the second year. When nothing further was done by the administration to "fire the starting gun," the faculty gradually lost interest and became highly concentrated at Level of Use 0 by the end of the second year.

During the University of Missouri-Columbia site visit, it appeared that the time was right for the "firing of the gun." The faculty members are enthused and positively aware of the need, yet not sure how they are going to develop the needed expertise and skill. Many are at Level of Use I, but they will need an impetus actually to commit themselves to use.

Just prior and subsequent to the site visit, Dean Woods and Dr. Grosenick initiated several activities to assist faculty and administrators in identifying resources and making the commitment to move on with the integration of mainstreaming concepts into their courses. These

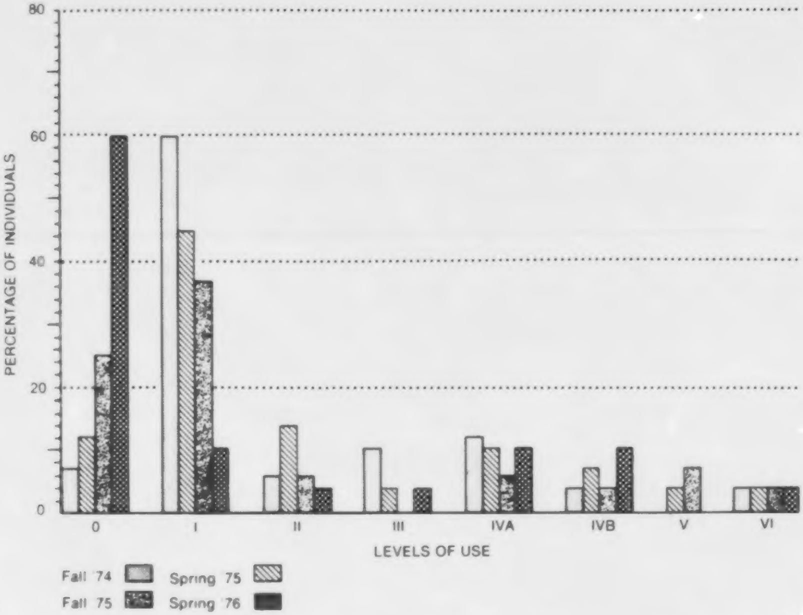


Fig. 4. Levels of Use distributions of individuals in University A over a two-year period. Excerpted from G. E. Hall, A longitudinal investigation of individual implementation of educational innovations. Paper presented at the annual meeting of the American Educational Research Association, New York, April 1977.

moves included providing some grant funds for faculty members to visit campuses where other Deans' Grants Projects are underway, a retreat of key college leaders to help plan and set priorities for the coming year, and the restructuring of the next year's grant proposal to move into more use-facilitating kinds of activities.

Although there are no quantitative data to back up the clinical impression, it appears from talking to faculty and administrators from other colleges and universities, and from reviewing the data reported here, that the administration and faculty of the University of Missouri-Columbia have very successfully initiated a change effort. This observation is supported by the contrast with several colleges where the Decree/Mandate Strategy was employed at the beginning of the Dean's Grant Project. In several of these institutions, there are reports of faculty members and administrators still being actively resistant to the concept two years later, which contrasts strongly with the University of Missouri-Columbia where many faculty members and administrators are actively involved or openly interested in becoming involved, *if* they can develop the needed knowledge and skills. With the established readiness, subsequent years of the grant will be able to provide the needed support.

Thus, in the case of the University of Missouri-Columbia, the strategies of (a) establishing an experimental program, (b) appointing a senior faculty member who is already established and credible to the faculty as change facilitator, (c) having the clear support of the dean, and (d) using a combination of informative awareness-creating activities, such as newsletters, seminars, and faculty retreats, all combined to form an Information Saturation Strategy that is working successfully.

Implications and Discussion

Many implications have been suggested as this chapter has developed. Admittedly, change in higher education is neither simple nor easy. The unique characteristics and dynamics of any given institution can make change easier or more difficult. A source of additional funds, such as the Deans' Grants, can truly facilitate a change — if the "right" uses are made of the funds. Strong emphasis has been placed on viewing change as a process rather than an event. Further, research concepts and findings have been presented that emphasize the importance of the individual, and some of the dynamics of change from the individual's perspective have been described. CBAM further assumes that there is regularity to the change process and that many aspects of change can be predicted, anticipated, and, therefore, facilitated.

In conclusion, some of the predictable aspects of change that the change facilitator should expect and be prepared to address, are as follows:

1. Personal concerns are a very important part of change. It is OK to have personal concerns. It is not OK to put people down for having personal concerns or to ignore them in managing the process.
2. First use of the innovation will be Mechanical. There are no instantaneous and magical cures for the users in the first cycle of use of the innovation. Chances are, for a while, that things actually may be worse than they were before the change.
3. Change facilitators and experienced users must make a concentrated effort to reach out to new users. Simply saying, "We invited them to sign up" is not enough. It is necessary to go out and get them.
4. Change takes time. The sooner policy makers and administrators recognize that there are no instantaneous cures, the sooner there will be a chance for meaningful change.
5. Different persons need different amounts and kinds of implementation support. Asking those faculty members who always are productive to once again take the innovative lead only al-

lows the rest of the faculty to continue as wallflowers. For the whole institution to grow, the wallflowers will have to grow too.

These points are based on one other assumption that is worth noting: An institution, school, or college can accomplish more results and of better quality if the individual faculty members work together rather than separately. Programs are more than collections of courses. As long as there are only individual proprietors, we will have only a cottage industry, although it may be physically located in one place. This assumption leads to the final two implications of the change process:

6. If the unit manager (dean, department chairperson, principal) does not overtly back the change, then it will not last. In formal organizations, very little will change without the conscious support of the formal chain of command. Resources will not be available; a professor will not be able to teach a needed course; an assistant professor will not get tenure and must leave; the classroom will be no longer available; and courses will not be scheduled correctly. Various supports for lasting change require the unit manager's public and ongoing support.
7. Getting it started does not mean that it will be there in five years. Much of the fun and nearly all of the excitement is in initiating a change. The years of debugging, hand-holding, cajoling, sweating, and crying do not have the same glory as the beginning. Our research suggests that it takes very different kinds of people to start change than to institutionalize the innovation. Very rarely do we find both sets of skills in the same leader. This is one time when it appears that changing horses in the middle of the stream may be appropriate!

Lasting and meaningful change is a difficult process requiring a heavy investment of time, effort, and energy. Although uncommon in our institutions today, planned change can and must become the norm. Our research suggests strongly that change facilitators who view change as a process and who focus their efforts on the individuals making the change — their changing concerns, needs, satisfactions, and behaviors — will have an increased chance to make their attempts effective and meaningful.

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Promoting Curriculum Change in a College of Education

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ABSTRACT. *Change relating to the implementation of the concept of mainstreaming is underway in many colleges of education across the country. This chapter examines the philosophy of change in academia espoused by one Dean's Grant Project. A description of both favorable and problematic factors influencing the change process is included. The chapter concludes with some suggested guidelines for operationalizing a change effort.*

Colleges of education throughout the country are in a state of unrest. At times, the situation has been characterized as a crisis or near crisis. According to Erdman (1977), "the very existence of professional schools of education will be tested in this decade." This unrest and its apparent sources are germane to this chapter because the unrest pervades the atmosphere in which Deans' Grants Projects are operating.

Part of the unrest has been generated by a loss of identity and mission in colleges of education. Some persons would contend that this statement is somewhat in error on the grounds that colleges of education never had a clear sense of identity and mission. Whether they are correct is of little consequence. The absence of a guiding philosophy certainly is causing serious problems in today's climate. Justifying the existence of colleges of education on historic grounds no longer suffices as competition for resources becomes increasingly intense.

Some faculty members in colleges of education have recognized the situation and have pushed strongly for mission clarification. For the most part, however, the sources of pressure have come from outside the walls of our colleges. Local school districts are becoming increasingly vocal about their role in teacher training. From their very pragmatic perspective, districts contend that they can perform more effectively as teacher trainers than can universities. In response to such criticism, education faculties attempt to revise programs to emphasize the technical skills demanded by districts. As these revisions occur, university colleagues question the education faculty on the academic and scholarly dimensions of their programs. Caught in the middle, the education faculty is placed in a dilemma. Individuals are immobilized as they try to respond to what they perceive as multiple masters with conflicting demands. In the absence of a clear conception of their mission, they are often ill equipped to assume a proactive leadership posture. Consequently, movement in colleges of education historically has been characterized by organizational drift rather than any notable direction.

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It is our view that if faculties of education remain in a state of suspension they will very rapidly become the architects of their own demise. The *question* is no longer whether we should take the lead and determine our course or let the matter pass into other hands; we *must* take the lead and determine the course we are to pursue. The Dean's Grant Project has played a significant role in beginning this process at the University of Utah.

Philosophy of Change

The philosophy underlying the initiation of the Dean's Grant Project at the University of Utah is based on several assumptions. We readily acknowledge that these assumptions and some of the implementation approaches may not generalize widely and certainly may not be relevant to other specific situations. However, descriptions of colleges of education across the country seem to have a strangely familiar ring in several general areas (Clark & Guba, 1976). Consequently, we intend to discuss change in an academic setting from an abstract perspective rather than merely reporting what has occurred in a specific setting or case. This discussion is based on our experiences in fostering change plus our perceptions of the varied and complex influences that are operative. In some cases, these perceptions may be in error or the experiences may not be replicable. Readers must take the initiative to sift, synthesize, and select what is most relevant for them.

For a variety of reasons, curriculum development and revision in a college of education would seem to be best accomplished with the primary involvement of regular faculty members, that is, the actual involvement of existing faculty members in the tasks of development and revision. Such an approach is often somewhat risky as many regular faculty members are not highly motivated or experienced in curriculum development processes. Additionally, faculty members outside the field of special education typically are not knowledgeable about handicapped children and do not view services to handicapped children as their concern. Such services are perceived as the domain of special education.

Despite the risk, the primary involvement of regular faculty members is strongly favored for two reasons.

1. The changes that occur should have a duration and impact far beyond the specific parameters of Deans' Grants Projects. It is assumed (although not known with any certainty since human systems are so fluid and variable) that such an effect can be best accomplished if the efforts and processes are internalized and made a part of the behavioral repertoire of the main body of existing faculty. This approach is seen as more favorable than obtaining the services of outside consultants or employing special staff to actually perform the development and revision tasks. The latter option would involve regular faculty in a much more limited and peripheral fashion. The inclination not to elect this option is based on the assumption that such a mode of operation further emphasizes the idea that the problem is not the regular faculty's but belongs to others (e.g., special education, project staff, and the outside consultants or individuals actually involved in the development). This approach would seem to reinforce the faculty's initial impressions and further deter them from internalizing the problem (or, as we chose to characterize it, the *opportunity*). Changes resulting from such an approach, although more rapid, perhaps, are less durable.

2. One cannot wait for faculty turnover and attempt to influence the selection of new faculty. In a college with 80 to 100 faculty members in several different departments, the process would be slow and uncertain. Retirement, resignations, and terminations certainly are not unknown, but most faculties are relatively stable (with high percentages of tenured members). Furthermore, the acquisition of new faculty lines in any significant numbers is typically viewed as improbable because of economic problems and pressures. Thus, the central involvement of regular faculty is favored.

Implementing Change

The fundamental philosophy of involving central faculty members in change dictates several parameters of the actual implementation process. Each is viewed as essential to promoting change in the context of an academic setting. In some cases, the parameters are frustrating and may appear to be unnecessary to persons outside of academia. In a military organization or even a business enterprise, for example, some of these factors probably would not even be considerations. Governance in a university setting, however, is shared to a much greater degree by persons who might be considered "the staff" in other circumstances. This characteristic is unique to a university and it must be preserved. Therefore, we address the following considerations seriously.

ATTITUDINAL CHANGE

Modification of attitudinal patterns is an essential prerequisite to changes in behavioral patterns. In fact, most behavioral scientists maintain that the most effective (and perhaps only) means of assessing attitude change is through behavior. At any rate, observations of faculty members in colleges of education suggest a number of factors that require attention if serious change is to occur. These same issues require attention if Deans' Grants Projects are to succeed and colleges are to respond effectively to the challenge issued in our introductory remarks: the charting of a course and taking of a proactive stance in defining roles and missions.

One factor that often needs urgent attention is communication patterns. Characteristically, it is a problem among departments but it also presents occasional difficulty intradepartmentally. It is not uncommon for faculty members to interact primarily about personal matters of a social nature, if they interact at all. Often one hears the cry that faculty members have little or no information concerning the details of their own departmental programs, let alone the structure or content of programs in other departments. In some cases, departmental programs remain essentially unarticulated beyond a listing of course titles. This condition further promotes a low frequency of communication about programs because little can be said.

Communication patterns in colleges of education are often nonexistent in any favorable sense. Many faculty members have not seriously communicated with their colleagues about program issues for many years. Beyond the obvious problems that this situation creates, it also leads to a poor understanding of each other's activities, aspirations, and motives. Communication between faculty and administration and administrative units becomes guarded (at best) and consists primarily of self-interest-oriented (and nontrusting) negotiations for resources.

An even more distressing factor is that it is not at all uncommon to find many faculty members and administrators who like such communication patterns. After all, it is a behavior pattern that may have existed for 10 to 20 years. It is relatively comfortable in some sense because it promotes the faculty's "doing their own thing" and involves little or no accountability beyond meeting classes, holding office hours, and attending periodic faculty meetings. Faculty members who favor such a situation often go to considerable lengths to maintain the status quo, and they raise the banner of academic freedom in opposition to any efforts aimed at change.

It is important to note that most colleges of education are not facing a situation in which *all* the resident faculty have the attitude characterized above. In most cases, one-third or less of the faculty members may represent this type of posture to some degree. A second third may present an attitude of chronic apathy (termed "inspired ambivalence" by some administrators) for a variety of reasons. The final third is likely to be split in half with some members being virtually impotent by virtue of their status within the college and the rest pressing for change, definition, and direction.

Maintenance of the situation described makes the definition of a mission and serious change efforts impossible. Attitude and behavior changes are needed to promote communication on a relatively widespread basis if anything beyond a superficial cosmetic tinkering is to occur. The obvious question then arises of how such changes can be accomplished. Las Vegas odds makers might well place a very low probability on success given the initial conditions. Such odds, however, would not fully account for the dynamics of human resources and their potency. Usually, a far greater resource pool is available than one would think from first impressions.

First of all, let us examine a bit more closely the faculty situation used as an illustration. The faculty members that are calling for change, definition, and direction obviously are a potential point of entry, even if they comprise a small group. Several factors must be considered in examining this group, some of which may be very favorable to promoting desired change while others may be counterproductive.

Although these faculty members as a group desire change, it is most likely that their viewpoints will differ regarding the direction or nature of that change. Often, by virtue of personality, these faculty members may be very vocal and aggressive about their particular visions of change, a situation that has all the potential of stopping collaborative communication and change efforts even before they get underway. In order to avoid head-on conflict at this point, it would seem important to determine the parameters of change and mission broadly and in such a manner that they will accommodate and encourage diversity within the general framework. Under such circumstances, the specific differences of opinion become far less important and the more generic effort receives greater focus. (This balance is always delicate and fragile, however, and requires continuing diplomatic effort.)

A second type of consideration must be given to the faculty group desiring change. It is obvious from the nature of the discussion thus far that we are interested in lasting and serious redefinition that impacts on the core elements of education colleges. This type of alteration has far-reaching implications, often progresses slowly, and necessarily emphasizes process and product. Occasionally, faculty members among the "movement" group call for change just for the sake of change. A more careful scrutiny of their position may reveal that it lacks the vision needed for the more important type of redefinition discussed here. Such a situation presents a dilemma. Although there is a potential resource here, the manner in which it is harnessed requires very careful consideration.

A further consideration of the faculty members pushing for change becomes crucial to the effectiveness of this vital resource group. Given the governance structures in a university, one clearly has to depend a great deal on power and influence from the faculty ranks to promote important change. The faculty group we have identified as an important point of entry is admittedly small in number. This group, however, may be far more potent than their numbers would suggest. In most human systems there are individuals and/or groups of individuals that wield a great deal of power and are extremely influential with their colleagues. Often, this influence is a result of personality variables. At other times, it is the result of status created by accomplishments or positions. To the degree that such individuals are also a part of the "change" group (and are visionary), the likelihood of productive redefinition is substantially enhanced. In many cases, these faculty members can serve as effective models for communication and personal efforts aimed at change. Most important, they can help to create an atmosphere that is conducive to attitude and behavior change. In some instances, they can be very effective in encouraging a broader involvement of faculty members, some of whom were essentially apathetic before.

We have spent considerable time discussing a rather small group of faculty members. This discussion seems warranted, however, in view of the important role they can play. Such a cadre of individuals may provide the key to successful redefinition. Without this key, the future direction appears much dimmer.

The second group of faculty members that may provide an important resource was previously described as apathetic. Since these persons represent such a significant portion of the faculty in many colleges it would not seem advisable to automatically dismiss their involvement. There is much to suggest that faculty apathy is generated by a variety of factors. Some individuals may have attempted to communicate and collaborate in the past only to be rebuffed; some may even have made repeated efforts and, subsequently, given up. Assuming that the experience was not terminally punishing, these faculty members are occasionally receptive to joining a more broadly based venture in cooperation. It would seem very important, with such faculty members, to insure that this new experience is more productive and rewarding than their previous experiences.

A second situation often prevails among certain faculty members that generates behavior resembling apathy. Some individuals simply do not know how or are not inclined to initiate activities outside the routine. An environment in which active communication and professional exchange does not prevail is deadly for these faculty members. Although they are probably not going to be leaders, they are often very energetic as collaborators if they are successfully involved. In many cases, they are equally as talented as other more visible faculty members and the behavior that appears apathetic primarily reflects personality or style.

One further note concerning faculty apathy relates to the reward structure within colleges of education. In large part, administrators of education colleges over the past decade have been no more creative or assertive than faculty members. In the absence of a clear mission and direction, many administrators have performed more of a stewardship role than a leadership role. The reward structure for faculty has infrequently valued serious collaborative effort, particularly in program development areas. Administrators typically have not emphasized collaboration as a worthy activity in their reward systems. Similarly, the interpersonal rewards from faculty colleagues have not been forthcoming. Consequently, faculty members have responded in exactly the manner that behavior science suggests they would: If it is not rewarded, they do not initiate or pursue that behavior. This truism suggests another point of entry for administrators who wish to promote change through collaborative efforts at redefinition. If the activity is truly valued, the reward structure must be redesigned to encourage faculty involvement. There is real danger in giving lip service to the value of an effort but not rewarding it when the time arrives. Such a tactic results in an immediate loss of the faculty's trust and confidence. It also places colleges of education in even a more disadvantaged position relative to survival than is currently the case.

RELEASE FROM OTHER RESPONSIBILITIES

Resident faculty members cannot successfully be involved in program development efforts at the same time that they are discharging the full complement of other responsibilities. It is an unreasonable expectation (in fact, punishing rather than rewarding) and will not result in effective efforts in either arena. Although some observers may contend that faculty members have gotten caught in the "activity trap" and really do have time, this perception clearly is not shared by faculty members themselves. In order to enlist their effective effort, they must have released time for the new involvement.

The concept of released time often requires a modification of attitudes among both faculty and administration. For the most part, colleges of education have had a "cover the classes" mentality for many years. We certainly are not suggesting that classroom instruction is unimportant. What we are suggesting, however, seems to be a revolutionary reconceptualization of resource deployment (apparently revolutionary to some college personnel). Other activities may be of greater long-range importance to the over-all college efforts: for example, research and program development and serious effort and time given to the definition of roles and missions. Thus, administrators must think seriously about how they budget faculty time and faculty members must sacrifice some of their paternalistic attitude toward students. Believe it or not, if priorities demand it, a given class *can* be taught for a quarter or semester by someone else. The long-range benefit in terms of improved programs and faculty skills would seem to far outweigh the presence of a particular faculty member in a given course.

INTERDISCIPLINARY COLLEGES OF EDUCATION

Colleges of education are interdisciplinary enterprises, whether we like the idea or not. Most colleges of education include several departments or divisions. As suggested earlier, such units typically have operated in separate domains with interdepartmental postures that are often adversarial rather than collaborative. Such an approach is ludicrous when one considers that at least part of the role of each unit is to prepare professionals for careers in school settings. In these school settings, they are expected to and, in fact, must interact as colleagues. The teachers, school psychologists, counselors, and principals must interact and (should) work together. Yet we have not taught our trainees anything about these other disciplines nor how to collaborate effectively. Worse than that, we have modeled in a manner that is just the opposite. The logic underlying such an operating mode is elusive, to say the least. For Deans' Grants Projects, it is essential that all relevant disciplines be involved in curriculum development. The faculty members of all disciplines (departments, divisions, etc.) must be involved in the definition of the college mission and roles. Colleges of education must become more than a loose confederation of faculty units under one umbrella for administrative convenience. It is not even administratively convenient under the current state of affairs.

OPERATIONALIZING THE EFFORT

We have discussed our fundamental philosophy of change in an academic setting and described some of the favorable and problematic factors characterizing the current situation in colleges of education. The next obvious question is, how does one operationalize the task at hand? There are no easy solutions nor simple techniques (at least none that we know). The foregoing discussion, however, logically suggests some guidelines.

One tactic that probably will not work well is coercion, if it is used alone. Coercion seems to be quite potent, however, if it is used in combination with other techniques. Pressure for change can be effective if it is done subtly and faculty members internalize the idea that change is needed. It is the best of all possible worlds if the need for change is *their* idea. They also must begin to believe that change is possible. It is extremely important when faculty members reach this point that they be given the *opportunity* to change. Opportunity may mean that they receive released time, encouragement, support in terms of resources, and rewards for their efforts.

Administrative leadership and support are crucial to the success of change efforts. We do not use the terms "leadership" and "support" lightly; they are meant to be interpreted literally. Thus, action steps are required from the top level of college administration. Passive support will not accomplish the task. It is a deadly situation if a faculty member comes to the administration wanting to do something (assuming that the proposal is part of the priority structure) and receives only a hearing. The implicit message is really not that implicit — "it is fine for you (not me) to take the initiative." The faculty member's response is quite predictable.

A more productive type of leadership and support requires actual action steps by the administrative head. A clear delineation of the priorities and what should be done to achieve the goals is a very important action step. Another is to respond to faculty members who are taking the initiative in priority areas. It is very rewarding for a faculty member if the response to a good proposal is basically, "Yes, by all means, and I will take the following steps to promote your effort." This response is an extremely potent endorsement and more often than not results in even greater effort by the individual.

The formal reward structure is, perhaps, one of the strongest tools that an academic administrator has to promote productivity. Historically, reward structures in colleges of education typically have fostered mediocrity. Often, less productive faculty members receive as much or nearly as much reinforcement (salary increment, promotion, tenure) as those who are more productive. If the administrator desires to encourage productive efforts, the rewards must be *boldly* and *selectively* distributed. (It is strange that this notion should even warrant mention but it most assuredly does.) Such action will not make life more pleasant for the administrator immediately but certainly it will do so in terms of long-range benefits.

One further note on coercion is in order. We clearly have chosen another philosophy as the method to promote change in academia: the involvement and encouragement of regular faculty. The method is effective and does work, for the most part. There are instances, however, in which faculty members or departments simply do not respond, even in the most facilitative environments. More likely than not, they will continue not to respond if there are no compelling consequences. In these circumstances, it is in the best interest of the over-all effort for serious administrative intervention, that is, coercion. It may require the termination of some faculty members or even the dissolution of a given academic unit, but not to take such action may sentence the over-all effort to failure.

Some persons may believe that such coercive actions are unnecessarily extreme and antithetical to the over-all philosophy that has been presented. Actions such as termination and unit dissolution smack of authoritarianism when they are interpreted as the sum total of an administrative approach. However, viewed in the perspective that has been presented, it is our contention that they are a necessary complement to the cooperative involvement approach. If coercion of this type is not a possible consequence for noninvolvement or nonproductivity, the essential reward structure is nonexistent; there is insufficient distinction in the reinforcement available for "those who do and those who don't." We believe that the necessary philosophic base for change in an academic setting must be one of shared governance and shared involvement. We also believe, however, that for this approach to be effective in charting a proactive course, it is important to establish a "balanced offense" that includes a credible potential for coercion.

Future Implications

Change is underway in many colleges of education across the country. The exact nature of the results is not evident yet and probably will not be clear for some time. The architects of the Deans' Grants program may have unknowingly provided the greatest catalyst for improving all of educational preparation in history. The impact has potential far beyond the education of handicapped children. Some of this impact is already becoming visible. If this impact continues in the future, the cost-benefit ratio of the program may be the best that the federal government has ever produced.

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The Process of Curriculum Change: Implementation of a Dean's Grant Project

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ABSTRACT. *The process of curriculum change is complex and laborious. Implementation of such change involves a multitude of variables. This chapter examines seven such variables and their interrelations. The curriculum change process is presented in the context of the specific Dean's Grant Project with which the author is affiliated and implications are drawn for Deans' Grants Projects in general.*

There are discussed in this paper the process of curriculum change in a school of education and seven of the variables that are related to that process. The variables are (a) the relation of curriculum change to faculty governance, (b) the relation of curriculum change to staff development, (c) the credibility of the change agent, (d) the awareness of external factors that influence curriculum change, (e) the complexity of the proposed curriculum change, (f) the timing and/or number of competing change demands, and (g) the reward or perceived threat resulting from anticipated change.

Any of the seven variables may appear to be simple in isolation. When the interactions of all the variables are considered, however, the resulting discussion becomes complex. If a given variable changes, its interactions with the other variables take on a new cast and, consequently, cause them to change. Thus, what may appear to be a simple, productive operation in one setting becomes complex and produces different results in another setting because of the different interactions of the variables.

In this paper, I discuss (a) each variable in isolation, (b) the interactions of the variables, and (c) the different approaches to curriculum change that are indicated by the different interactions of variables. Part of the discussion is based on general perceptions and part on my perception of the curriculum change process occurring through the Dean's Grant Project at California State University, Los Angeles; from the discussion, principles are drawn which are applicable to all Deans' Grants Projects.

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California State University, Los Angeles, is an urban institution. The total enrollment, currently, exceeds 24,000 students; over 45 per cent of the students are from the high-density minority areas surrounding the campus. About 3500 students are enrolled in the School of Education. Each year, approximately 460 elementary, 285 secondary, and 200 special education students complete the requirements for credentials. The Department of Educational Administration trains about 100 students per year and the Department of Counselor Education, which includes the School Psychology Program, about 125 per year. Many students are employed in an educational setting and are working toward the M.A. degree in their fields.

The Relation of Curriculum Change to Faculty Governance

In a university setting that allows faculty members a true voice in governance, it is essential that the faculty have an active role in decision making and/or curriculum change. In such a setting, the decision makers or curriculum developers must be responsive to faculty contributions or the innovation is doomed; when administrative and/or curriculum changes are forced upon a faculty, the response is grudging at best or totally negative. However, difficulties also may arise initially because of less obvious reasons.

As a faculty moves toward important changes in curriculum, the different viewpoints of individuals or groups may lead to apparent conflicts. Sometimes, conflicts may arise because of limited vision, that is, an individual or a group may view an issue solely in terms of how it will affect a given department or unit, or how it will affect the individual's or group's relation to an existing program. Should such a stand-off occur, it is desirable to continue the decision-making process until everyone has a clear understanding of how a specific decision will affect the persons, departments, or university units that are involved, and the impasse is resolved. Once an honest and open consensus is reached, the implementation of the decision should meet with few or no objections from the faculty members.

The change agent may need to maintain a low profile while the conflict is moving toward resolution. He or she may meet informally with individuals to discuss the issues or he/she may ask selected faculty members to visit exemplary programs at other universities and then to report on them. Other related activities are discussed in the subsection on the relation of curriculum change to staff development.

Another source of difficulty may be the structure of the school and/or department. If the structure is rigid, it may lead to reduced communication with other schools or departments in the university and to competition for resources. When communication is minimal, faculty members have little awareness of what is going on outside of their own departments. They jealously guard such resources as operating expenses and travel funds, and they become concerned about the security of positions that are needed for potential student enrollment and of units that generate instructional support. Within a school, the competition for resources among departments can seriously limit interdepartmental or interschool activities.

Because of the administrative structure of California State University, Los Angeles, most projects undertaken within the School of Education prior to Project Mainstream, the Dean's Grant Project, were primarily single departmental efforts. The fact that the Dean of the School of Education is the director of Project Mainstream, supports it strongly, and has taken the initiative toward the achievement of the project's goals, has greatly reduced individual fears and facilitated the participation of faculty members in working toward the goals.

The committee structure within the School of Education was used in an advisory capacity to guide the dean and the project staff. The standing committees that participate in the operation of the School of Education and the departments are (a) the School of Education Advisory Committee, (b) the Department of Special Education Advisory Committee, (c) the Department of Elementary Education Advisory Committee, and (d) the Department of Secondary Education Advisory Committee. The development of the mainstreaming emphasis in training programs was discussed at advisory committee meetings and all curricular changes were presented to department committees, School of Education committees, and all other University curriculum and policy committees.

To facilitate the all-school effort, two additional steps were taken. (a) Suggestions and information were sought by each department and the dean from persons outside the University. (b) A special task force committee was formed; it included the departmental chairpersons from Elementary Education, Secondary Education, Educational Foundations, Counselor Education, Educational Administration, and Special Education. Also included in this task force were one elected representative from each department, the faculty assigned to the Dean's Grant Project, and representatives of specific areas of program development: School Psychology, Speech Pathology, Psychology, and Industrial Studies. This task force works directly with the Dean of the School of Education and the associate project director to review and advise on specific project objectives, procedures designed to insure the achievement of these objectives, and other significant issues.

The Relation of Curriculum Change to Staff Development

The staff of the Dean's Grant Project took the position that the competency to redesign and implement programs exists or can be developed within the concerned departments of the School of Education. Therefore, program changes were expected to proceed from within rather than to be externally imposed or developed under externally imposed leadership.

In training institutions that rely heavily on faculty participation in the decision-making process, the degree of the faculty members' awareness of existing issues and current problems is critical. Thus, at California State University, Los Angeles, staff development was given high priority preceding and paralleling the reconstruction of the training programs and the implementation of these programs in a field setting. The recipients of the inservice training can be grouped as follows: (a) School of Education faculty, (b) departmental faculties (within the School of Education), (c) faculty members involved in teaching specific components of the instructional program, and (d) field personnel involved in the implementation of the instructional program.

The objectives for the staff-development activities were derived from the competencies a student in training is expected to develop in the training program and in the field setting.

SCHOOL OF EDUCATION STAFF DEVELOPMENT

Topics for staff development at the School of Education level consisted of (a) concepts related to characteristics of exceptional children, (b) general concepts related to the education of children in the least restrictive environment, (c) discrepancies in growth and development between and within individuals, (d) individualization of instruction, (e) implications of the *California Master Plan for Special Education* and, (f) implications of Public Law 94-142 for the development of educational services.

The procedures included scheduled one-day workshop meetings and the distribution of books and other publications and copies of the *California Master Plan for Special Education* and Public Law 94-142. Multiple copies of books and pamphlets were purchased and made available to faculty members through the various departmental offices, the Dean's Office, and the associate project director's office. Moreover, position papers were written by project staff on various topics and distributed to faculty members of the School of Education. The first one-day workshop combined the resources of the University Computer Center, the Dean's Office, and the Mainstream Project.

DEPARTMENTAL STAFF DEVELOPMENT

Department-level staff development was viewed as a continuation and broadening of the general objectives at the School of Education level. The procedures included the procurement of instructional materials and other literature that were judged to be beneficial for staff development, curriculum revision, and instruction. One-day workshops focused on specific mainstream topics; program-development topics were scheduled by the Departments of Elementary and Secondary Education. Videotapes developed for the Special Education survey course were made available for presentation to the faculty. In addition to the designated periods of staff development, regular departmental faculty meetings discussed mainstreaming topics and program development along with other agenda items. The project director, associate director, other project staff, and guest faculty members attend either special departmental or regular departmental meetings on a guest and/or consultant basis. During the Elementary and Secondary Education faculty meetings and the one-day workshops, departmental faculty delivered presentations and a limited number of persons outside the department contributed to the programs.

STAFF DEVELOPMENT FOR MODULE IMPLEMENTATION

Department faculty scheduled to teach modules for the new program received staff development in small groups prior to the implementation of these segments. Faculty in the Secondary Department scheduled several Saturdays for final module revisions and planned for pilot implementation. Faculty members who are given an initial assignment to a new program segment have available on a "tutorial" basis a consultant from the Department of Special Education or his/her own department who is highly competent in the program area assigned. The specific module objectives are the objectives of staff development for the small group and/or "tutorial" sessions. The staff development includes the review of specific instructional objectives, suggested activities for the instructor and class, resource materials, and suggested references for both instructor and learners.

The development of field-site locations paralleled the initial development of the modules for the instructional program in Elementary Education. A Diagnostic Learning Center located near the University was selected as the first training site. The Diagnostic Learning Center serves a number of schools in the University's neighborhood. Children with learning problems may be sent to the Center for a three-week appraisal and program-planning experience and then they are returned to their own schools. The resource teacher at the Diagnostic Learning Center is responsible for assisting the local schools in implementing the educational plans developed. The training model for students at California State University, Los Angeles, places students in classrooms within a school in the service area of this diagnostic center. The student assists the classroom teacher, reviews a child's performance, and follows the child's experience through the Diagnostic Learning Center and back to the classroom. During their first field experiences and directed teaching, trainees again are assigned to regular classrooms in which children are mainstreamed.

STAFF DEVELOPMENT FOR FIELD PERSONNEL

In order to prepare field staff to help students to achieve the instructional objectives of the program, the field staff was given one day of staff development prior to the implementation of the program. Fifteen teachers were brought to the Diagnostic Learning Center for one day. The objectives were to provide an overview of mainstreaming, information on the current classification of exceptional children, and ideas on the anticipated direction of program development in California. Copies of the modules used in the School of Education classes were distributed to the teachers. They were familiarized with the objectives for the students in training and participated in the simulation of some of the activities students would be expected to perform.

In order to familiarize workshop participants with specific module objectives, participants briefly reviewed all three modules. After the review, they worked through various exercises developed for use with pre-service trainees, including hypothetical case studies and the development of individualized educational plans.

The Credibility of the Change Agent

Within a school of education or a university department, change often begins with one individual. That is, an individual within the school or department acts as the initial change agent and seeks the support of additional individuals and, finally, of the majority or entire unit. If the change agent does not have the approval or credibility, of his/her peers, he/she is not likely to be effective.

It can be hypothesized that a change agent's credibility must exceed the credibility of the program aspect to be changed. If the credibility of the individual change agent is at such a high level that all personnel in the unit automatically follow him/her, the change can occur very easily. However, this situation cannot be expected in most educational settings. It probably occurs only in faculties that are relatively weak but include a strong individual. In a strong faculty group, diverse opinions usually exist. The melding of these opinions into a unified consensus usually precedes the development and implementation of curriculum change.

The credibility of a change agent may be enhanced by staff development which is designed to create faculty awareness of a needed change.

A needs assessment designed to give precision to the dimensions of a needed change likewise enhances the credibility of a change agent. However, the change agent also must be flexible and responsive to the analysis of sound needs-assessment data. The gathering of needs-assessment data may follow the initial staff development in awareness and parallel subsequent in-depth staff development. This process is discussed in an earlier section of this paper.

The selection of a director for a Dean's Grant Project may be crucial to successful curriculum change. Such factors as faculty awareness of needed change, other competing demands on faculty, availability of resources needed for change, the threat of change to faculty, the director's rank in the professional hierarchy, and the faculty's respect for the director all may interrelate in the choice of a project director and the percentage of time the director will need to give to the project.

If the concerned school or department is placing many competing demands on the faculty, a great deal of the project activities should be assigned to the director and his/her staff (e.g., planning staff development, gathering needs-assessment data, developing curriculum and materials). The compatability of the director and project staff with the rest of the faculty increases in proportion to the amount of responsibility that is assigned to the project staff.

The assignment of a highly respected colleague to a leadership role in a Dean's Grant Project not only helps to provide good leadership but, also, demonstrates the support being given the project by the school dean. The level of support given by the dean interacts with other variables (see the section headed, "The reward or perceived threat resulting from anticipated change").

The Awareness of External Factors That Influence Curriculum Change

External factors that create a need for change include legislation, public opinion, professional positions, and social goals. In the State of California, the approval of the *California Master Plan for Special Education* has led to legislation to implement the Plan. In addition, Public Law 94-142 is influencing policy and procedures within the state's public schools. Professional organizations, including teachers' organizations, have taken positions on the rights of handicapped children and on the integration of handicapped children in regular classroom settings. Parent groups and other public-opinion groups also are taking positions on school operations. Change in curriculum results only if the change agent and faculty members are fully aware of the implications arising from such forces.

In order to build awareness and full comprehension of the effect of some of these forces, staff development often is an essential prerequisite to curriculum change. In regard to curriculum to implement the objectives of the Dean's Grant Project, it was essential to familiarize faculty members with the *California Master Plan for Special Education* and with legislation enacted by and under consideration in the California State Legislature. It was also necessary to familiarize faculty members with the major provisions of Public Law 94-142 and to anticipate projected developments within the public schools. Staff development also included the dissemination and discussion of positions on mainstreaming taken by such professional groups as the National Education Association (NEA) and the American Federation of Teachers (AFT). The NEA passed, at its 1975 convention, resolution 75-27 (National Education Association, 1975), and, at its 1977 convention, resolution 77-33 (Ryor, 1977). The position taken by the AFT at its 1975 convention can be found in Rauth (1976).

The positions taken by special educators also were reviewed. A word of caution should be injected at this point. Often, special educators rely heavily on the positions taken by their colleagues in attempting to influence persons outside their narrow discipline. In fact, these special educators usually are unaware of positions taken by regular education groups and of resource materials that are prepared by regular educators. If curriculum change or any change that affects regular education is contemplated, support for that change from one's own colleagues would be of greater positive value than that of associate faculty members.

When a change agent contemplates the use of information to develop a rationale for change, it may be desirable to begin by establishing an awareness level of information needed. Some position papers may be produced simply to give basic information on current trends in state educational policy; others may give an overview of federal regulations; and still others may provide information on education in the least restrictive environment. After this information is reviewed by individual faculty members, it should be discussed at regular faculty meetings or at a special staff-development workshop. Following the initial discussions, more detailed descriptions of legislation and other materials directed toward curriculum change can be distributed. Study groups and/or faculty meetings devoted to discussions of current issues should develop a high level of cognizance of the external forces that suggest directions of change for college or university curricula. A high level of understanding should not only facilitate the acceptance of a need for change but, also, guide a faculty toward the appropriate changes.

The Complexity of Proposed Curriculum Change

Another factor related to change in curriculum is complexity. To what degree does the change result in altering the basic training program? If the change is initially perceived as a complete alteration of the training program, it may meet with considerable resistance. However, if the change is introduced in relatively small increments, it may be much easier to effect. When there is considerable dissatisfaction with existing programs, a complete alteration of the training program may be considered as an immediate goal without anticipated faculty resistance.

In the project setting at California State University, Los Angeles, the Departments of Elementary Education and Secondary Education rewrote their teacher-training programs to conform with the State of California Ryan Act guidelines. This revision occurred two years prior to the initiation of the mainstream project. The guidelines specified that no credential program in the State of California can require more than one academic year of training, of which one-half must be in direct classroom experience. This restriction on the number of units in the credential program made it impossible to include additional courses for competencies in mainstreaming.

To remove part of the existing program and substitute another might have created insurmountable problems; therefore, the faculties involved in the discussions of the original project proposal decided that the additional units needed for mainstreaming competencies would be developed in an optional program and a University Certificate of Completion would be awarded to graduates of that program. That is, a student would complete the regular credential program within the allocated number of units and take the additional units in the alternative program; upon completion of both, he/she would be awarded a University Certificate of Completion. This optional program is now in its second year of operation in the Elementary Education Department and beginning its first year of operation in the Secondary Education Department. The faculty members assigned to teach segments of the Mainstream Option include an increasingly large percentage of each department's faculty. As the competencies are taught parallel to the existing program, there is a spill-over effect in which the regular program begins to incorporate some of the mainstream competencies. The Elementary Education faculty is currently considering the possibility of absorbing the mainstream competencies within the regular training program and probably will do so during its next major program revision. This revision will include the competencies that are currently in the regular program as well as those in the alternate track. Many of the competencies in the regular program and the alternate program are not very different in nature but vary in the level of performance expected and in the setting in which they are demonstrated. In other words, having taken the first step, the faculty currently is considering altering the total credential program. The perception of the magnitude of change needed has diminished as faculty members became more familiar with the specific competencies developed for the Mainstream Option. When the entire program undergoes revision, the Mainstream Option no longer will be necessary, as it will then be part of the "basic fabric."

The Timing and/or Competing Change Demands

While one change agent is working toward curriculum revision within the teacher-preparation program, that is, toward the introduction of competencies needed by teachers to deal with handicapped children in regular classrooms, other areas of change are being suggested, developed, and/or implemented. Schools of education are currently facing the need for programs to deal more adequately with the problems of multilingual and/or multicultural students in public schools. The preparation of teachers with skills to participate in bilingual programs and/or programs in which English is presented as a second language is also underway. Other competing efforts may be the development of various program assessment procedures and/or instruments, or the revision of a departmental training program to meet new state credential regulations.

Although all the factors to insure the success of a given curriculum change may be present, if the timing is wrong, that is, if the change is not perceived as relevant to immediate needs, the pressures of competing demands may be sufficient in magnitude to inhibit the curriculum change. In fact, if the system has insufficient resources to insure the successful completion of current change efforts, the introduction of an additional change may not only doom the latter to failure but, also, stifle the on-going change.

If resources to develop changes in curriculum are available and competing demands are not using the resources, it might be advisable to give high visibility to a potential area for curriculum change. In other words, if there is no known opposition to the change, one might anticipate rapid movement toward the change of a curriculum. However, in most schools of education, there are always ongoing demands for the limited resources. Thus, a change agent should probably operate from a low profile until the system is sensitized to the need for the new change and the faculty perceives the dean or management of the system as highly supportive of the proposed change. In fact, if the progressive movement toward change is held in abeyance until support is generated from a low profile, most opposition can be expected to disappear and priority can be given to the desired change. The assignment of this priority may need to wait until other changes already underway have progressed to the point where energies can be rechanneled accordingly.

The availability of funds designated for change, such as those associated with a Dean's Grant Project, may enable a school to move ahead despite competing demands if the project staff assumes most of the time-consuming tasks of revising existing programs and curricula. Often, the faculty members with the greatest potential contributions to curriculum change have heavy assignments. However, released time for these members can be purchased by the project to assist its staff. It is essential that all faculty members in the involved departments be in continuous consultation with the project staff.

Reward or Perceived Threat Resulting From Anticipated Change

Changes in existing curricula and/or training programs may be perceived as threatening by some university faculty members under the following conditions: (a) The faculty member views her/his level of competence as inadequate to cope with the change; (b) the change is viewed as unsupported by the dean and/or school administration; or (c) he/she may view the change as not in her/his personal interest or in the best interests of the program he/she serves.

Most individuals, including university faculty members, are threatened by the unknown. When faced with the development of a training program to prepare regular educators to deal with handicapped pupils in a regular classroom setting, a faculty member may conjure up visions of seriously emotionally disturbed, multihandicapped, and other severely handicapped children. If the faculty person does not understand and accept such children, and if his/her ability to deal with the problems of such children has not been established or developed, the faculty person may perceive as a threat the need to train teachers to work with such children. We know that one individual, whether a regular education teacher or an educational specialist, cannot be expected to deal effectively with all children for whom the public schools are responsible. To purport to train specialists to deal with all handicapped pupils in all settings may be naive and unrealistic, and, indeed, the faculty expected to participate in such a program may have good reason to feel insecure. However, whether realistic or unrealistic, the effect of anticipated program changes must be dealt with as it is perceived by the faculty; a threat is a reality if it is perceived as real.

Clear definitions of the expectations for program graduates and the settings in which they will function should reduce the personal threat to faculty members who participate in programs to train teachers to work with handicapped children. A clear understanding of the limit and extent of the classroom teacher's responsibility should help to alleviate perceived threats to the regular education teacher and to the university trainer of teachers. There were discussed in the previous section aspects of staff development that should lead to realistic appraisals of mainstream programs and the competencies required of personnel who function in those programs.

If members of a university faculty believe that their jobs are in jeopardy because of new competencies that may be required of teacher trainers, we can expect them to adamantly oppose changes in the curriculum.

To faculty members who are threatened by job-related insecurity, confidence in the dean is crucial. Full support from the dean is critical at all stages of curriculum development. By attending departmental meetings and all-school meetings, the dean can establish her/his position and thereby support the development of changes in curriculum which are consistent with that position. Also, the dean must clearly support staff-development efforts that are designed to train college or university faculty members to participate effectively in mainstream training programs.

Existing divisions among departments within a school of education and/or the lack of comprehension of each other's programs may cause change to appear threatening to faculty members who think that the change will require a close working relation. The perceived threat may be reduced if the departments involved in the training programs are assured that they will maintain control of their own training programs and the staffing of those programs, even if they elect to use staff members from other departments.

Existing programs and their related curricula are usually the result of faculty effort. Generally, faculty members work cooperatively to effect change and develop programs. The adoption and perpetuation of such programs tend to reinforce the egos of the persons responsible for the programs. Attempts to change programs may be viewed as a judgment that the programs are faulty and/or inadequate.

In order to reduce the potential level of defensiveness within a faculty group, the need for program change should, if possible, be related to developments that will occur after the program change is adopted. In addition, the rationale supporting the desired change should be disseminated to and fully understood by everyone who will be affected by the change.

Summary

The development of a rationale for the change of a curriculum may be likened to a search for truth. Staff development, as outlined in this paper, provides a method by which this search for truth can be accomplished. The next step, the use of truth, follows if the faculty is action oriented and no specific constraints are present.

The fact that a dean of the school of education is serving as project director is not automatically a positive or negative factor. The effect is determined by the dean and her/his past interactions with the faculty within the school. If the dean shows high interest and gives strong support to the curriculum changes that are needed to meet the objectives of a Dean's Grant Project, her/his position of leadership will have a positive influence on a faculty that is accustomed to working cooperatively with the dean. However, if, within the school of education, there are strong vested interests, and especially if some of these vested interests are aligned against the dean, the personal interests may supersede rational expectations.

If conflicting opinions or positions exist within a democratic faculty structure, the continuing struggle between factions of equal strength will effectively stop the change of programs or of a training curriculum in a school of education. Differences must be reconciled on a cooperative rather than an adversarial basis. Individuals on each side of the issue must respect the personal integrity and ability of those in opposition. In other words, a degree of mutual trust is required to reconcile differences. Generally speaking, user-initiated change, if the entire system changes, guarantees implementation of that change. The perpetuation of struggles impedes the change process to the degree to which various individuals perceive such changes to be threats.

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Curricular Change and Institutional Reorganization[1]

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ABSTRACT. *The reorganization of teacher-training programs is described in the context of the Dean's Grant Project at the University of Oregon. Key elements in the successful renegotiation of the boundaries between special and regular teacher preparation are identified. Examples of both facilitators and barriers to successful curriculum renewal are provided in a candid discussion of the University of Oregon project development. This development is characterized by phases of growth, beginning with a period of some confusion and maturing to a period of directed, meaningful activity. In a final section, obstacles to successful project development are identified and discussed within the framework of the University of Oregon project.*

The wide variations in the size and programmatic foci of institutions of higher education, which must be accounted for in institutional planning, warrant a short description of the University of Oregon and its College of Education. The University enrolls approximately 16,000 students. As a liberal arts institution it comprises, in addition to the College of Arts and Sciences, eight professional schools. Heavy emphasis is placed on scholarly activities, as is true of most large universities, but, also, on teaching. The faculties have ultimate responsibility for and control over the instructional programs. The autonomy and strength of individual faculty members are highly valued norms. The College of Education has about 180 faculty members of whom more than half are engaged in funded research and development activities. The current enrollment in undergraduate teacher education is about 1100, and the total graduate

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enrollment is 500. The College is organized into three Divisions: Teacher Education, Center for Educational Policy and Management, and Developmental Studies. Each Division is headed by an associate dean with full line responsibilities.

Early Reorganization Efforts

The College of Education at the University of Oregon has been undergoing change since the early 1970s. Change was stimulated by the realization that students and the College could be better served if training programs were more closely allied or integrated. In 1973, the eight departments of the College were combined into three Divisions. The former Department of Curriculum and Instruction and the Department of Special Education were reorganized into a single administrative unit: The Division of Teacher Education. Thus, an administrative structure was created that was consistent with the philosophy of integrated teacher education. The areas of special education and curriculum and instruction share a common budget, and faculty offices are arranged in the Education Building so that both faculties interact frequently with each other. More frequent interactions have reduced some misperceptions each faculty had of the other. In addition, combining the two programs administratively and physically has encouraged joint planning and research activities.

The organization of the Division of Teacher Education did not produce significant programmatic changes in and of itself. It took time for confidence, mutual trust, and respect to increase to the point at which programmatic changes could occur. What were perceived to be seriously divergent philosophies of how to teach children and train teachers continued to persist. These differences gradually diminished as faculty members became better acquainted with their colleagues across old departmental lines. Problems remained to be solved, but the administrative reorganization of the College of Education established a forum for the continued discussion of the integration of regular and special education programs.

Other preliminary steps toward integrated teacher education included (a) the adoption of a noncategorical approach to special education endorsement, as mandated by the state accrediting agency in Oregon; (b) the continuation of a dual certification program in special and regular education; and (c) the addition of new staff members who have both regular and special education credentials.

Reorganization and the Dean's Grant

The receipt of a preliminary planning grant (Dean's Grant) during 1975-77 enabled the College of Education to focus specific attention on revisions in teacher-training curricula. The major goals of this two-year planning period were to collect data and establish the mechanics for integrating regular and special teacher preparation at the undergraduate level, and to gain a commitment to change from College faculty members. These goals were tied directly to the major goal of the project, that is, to develop a professional training program that prepares pre-service general educators to offer effective instruction to students who exhibit wide differences in ability and behavior, including handicapped students, in mainstream classrooms.

In striving to achieve the major project goal of integrating regular and special teacher preparation, the Dean's Grant Project at the University of Oregon has evolved through a series of developmental stages. At the outset, the project staff were naive about the scope of the curricular changes to be made and the extensive commitment of energy that would be required to make those changes. The following project description shows how this Dean's Grant Project stumbled through an initial period of planning and, then, as the project matured, formed a clearer picture of what was actually involved in the development and implementation of an integrated teacher-education program.

PHASE I. INITIAL PLANNING (EXPLORATION AND TENTATIVE PLANNING)

During the early phases of project development, little information was available for use as guideposts for Dean's Grant Project planning. Few institutions of higher education had taken the initiative in integrating programs of special and regular teacher preparation. Rather, separateness of these programs was perpetuated. Few people, if any, had any notion of the procedures that could be used to accomplish program integration. Projects viewed integration as a distant goal and tried to approach it through a series of successive approximations.

Process Objectives

Because so little information was available for early project planning, the Dean's Grant Project at the University of Oregon adopted a set of process objectives to enable the staff to achieve its major goal. These process objectives are as follows:

1. Design and implement a planning model that assures the full participation of faculty, students, and public school personnel.
2. Collect and organize data from various sources on the current status of teacher-education programs, the need for revisions in the programs, constraints on program changes, and the most acceptable form for revisions.
3. Use collected data as a basis for decision making; delineate all essential objectives of new teacher-education programs and the

alternative instructional procedures required for their attainment.

4. Submit proposed revised teacher-education programs to the faculty and approving agencies for possible further revision and subsequent adoption.
5. Implement the program designs, as approved by the faculty, approving agencies, and the Teacher Standards and Practices Commission (Oregon's accrediting agency), and collect data for the futher program modifications that may be necessary.
6. Explore the possibility of extending the new training model in teacher education to other instructional areas.

During the first year, the primary focus of the Dean's Grant Project was on establishing a planning model and implementing the model to provide for program development that encourages, directly or indirectly, the participation of all faculty. To insure the thorough and effective implementation of the integrated training program, a planning committee was established. The committee comprised students from the areas of special education and curriculum and instruction, public school personnel, and faculty from the the College of Education.

A key objective of this planning approach was to keep each person with a current or future interest in program revision on board and actively involved in the planning process. By this method, ownership of the project was distributed among several interest groups.

Assessing the Realities of Change

Before a new program could be explored, the parameters of change had to be established. What changes in teacher-training programs were really possible, given the constraints of (a) university requirements? (b) requirements of approving agencies? (c) resources available to plan change? and (d) the limits to which faculty members and public school colleagues could tolerate change? Providing answers to these questions became the objective of the first year of the project. Although a good deal of faculty support for the project was evident at the start, it was equally evident that faculty members were concerned about the form that the program change would take, their positions in the revised programs, and how their teaching and research interests would be protected.

Whenever change is considered in any institution, one must be thoroughly aware of its cultural norms and of the dynamics that are needed to facilitate the change process, including procedures and personal interactions. It was necessary to clarify the roles and responsibilities of the principal internal and external units or agencies that influence the design and operation of teacher-education programs at the University of Oregon.

The primary internal groups in University governance for teacher education are the College of Education (i.e., students and faculty), and the University Teacher Education Committee. The latter group has University-wide representation and initiates or approves the policies relating to the various academic disciplines that prepare teachers. The committee is an extremely important approving agency as it represents the disciplines across the campus that provide the major components for teacher-preparation programs. A third group, the Teacher Education Consortium, comprises representatives from contiguous school districts, parents, students, and College faculty members. The Consortium offers a vehicle through which various interest groups in education can act collectively to design and modify teacher education.

The external agency most closely associated with teacher education in the State of Oregon is the Teacher Standards and Practices Commission (TSPC). When TSPC was established as an autonomous certification and program approval agency in 1973, it adopted two program approval routes: The first was based upon a set of established standards, much like NCATE's; the second, which is used for any new program, is called "Process Standards." This approach provides for decision making on program development in consortium arrangements. These consortia are composed of teachers in the public schools, representatives of boards of education (usually central office administrators), university students in the program affected, and university faculty. As the state program approval and certification agency, TSPC has directed institutions making major revisions in their teacher-training programs to use this consortium mechanism.

When this idea was adopted, a great deal of opposition from higher education was felt. Considerable fear was expressed that it would be a cumbersome and politically unfeasible arrangement for planning, decision making, and program implementation. Nevertheless, the College of Education has used this approach to program planning for three years; all the fears occasionally felt have proven to be without substance. Although it is more time consuming, the results have been more than compensating in terms of good relationships and program quality. The we/they syndrome has all but disappeared, and the field assistance the College receives in program delivery and in dealing with the politics of higher education has been substantial.

Planning for Change

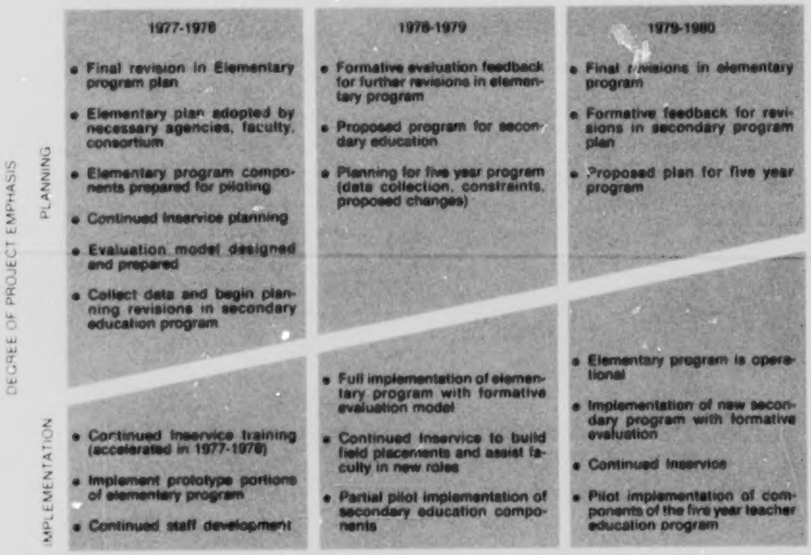
A major accomplishment of the Oregon project, during its first year, was the identification and articulation of a program-planning model. The model, which served as a basic guide for program development, consisted of four groups of activities: (a) identifying program content; (b) identifying program-delivery models; (c) evaluation; and (d) dissemination. Project Planning Committee members were assigned tasks in each activity area. The goal of the planning committee was to collect data related to the design of an integrated elementary teacher-education program.

The planning model also provided for a stairstep approach to curriculum renewal. Attempting to revise all the teacher-training programs at once would have quickly outstripped the College's resources and been too disruptive for the faculty. Thus, the elementary program was made the first target for revision; in subsequent years, other revisions in areas of training would be explored (see Fig. 1).

A second goal of the planning committee was to use the data collected to make recommendations for a revised elementary program. Therefore, initial planning was seen as a two-step process: (a) the analysis stage, and (b) the synthesis stage.

Analysis. During the analysis stage, a determination of the course objectives, organization, and background of the current programs in elementary and special education was completed. It was essentially a goals and objectives analysis of the existing programs. Faculty members were asked to describe their portions of the existing programs in terms of their course objectives.

To write objectives, faculty members were provided with a format that contained key words, such as, knowledge, skills, and attitudes. The use of a single format or style for writing objectives allowed project plan-



1977-1978

PLANNING
- Final revision in Elementary program plan
- Elementary plan adopted by necessary agencies, faculty, consortium
- Elementary program components prepared for piloting
- Continued inservice planning
- Evaluation model designed and prepared
- Collect data and begin planning revisions in secondary education program

IMPLEMENTATION
- Continued inservice training (accelerated in 1977-1978)
- Implement prototype portions of elementary program
- Continued staff development

1978-1979

PLANNING
- Formative evaluation feedback for further revisions in elementary program
- Proposed program for secondary education
- Planning for five year program (data collection, constraints, proposed changes)

IMPLEMENTATION
- Full implementation of elementary program with formative evaluation model
- Continued inservice to build field placements and assist faculty in new roles
- Partial pilot implementation of secondary education components

1979-1980

PLANNING
- Final revisions in elementary program
- Formative feedback for revisions in secondary program plan
- Proposed plan for five year program

IMPLEMENTATION
- Elementary program is operational
- Implementation of new secondary program with formative evaluation
- Continued inservice
- Pilot implementation of components of the five year teacher education program

Fig. 1. The relative emphases given program planning and implementation, 1977-80.

ners to compare courses objectively within areas and across the areas of special education and curriculum and instruction.

A second part of the analysis stage was the identification of 50 teacher-training objectives related to instruction in mainstream settings. These objectives were identified from the literature, from faculty (both special education and regular), student, and school personnel suggestions, and from a task analysis of the role of a mainstream teacher. The identified objectives then were subjected to review by regular and special education students, faculty members in the Division of Teacher Education, and a sampling of local school personnel. The results of the survey suggested a close agreement among the groups on those objectives that were identified as critical for the program and those that were identified as nonessential. Objectives that were selected as essential at least 25 per cent of the time or more by all groups were earmarked for inclusion in the new program.

These essential objectives can be grouped in two major areas: (a) methods and materials for teaching exceptional children, especially diagnostic-prescriptive techniques; and (b) classroom-management techniques. The objectives garnering the most disagreement addressed knowledge of and attitudes toward mainstreaming, and identification and placement procedures. Most survey respondents indicated that the tool skills of teaching and managing were most essential and, further, that these skills ought to be mastered by all teachers regardless of their current levels of involvement in mainstream programs.

Synthesis. In the synthesis stage, a final list of program objectives was developed minus the redundancies of the old program and with the newly identified essential objectives added. A plan was devised to incorporate these program objectives into existing coursework or, when necessary, into new courses. This process can be seen as one of determining instructional objectives in current coursework, comparing them to what we would like to have, and then noting the overlap and discrepancies. The overlaps and discrepancies become the focal points for change recommendations.

The culmination of this effort was the development of a single document; it represented a rough draft of the proposed new program which had been pulled together from all the previous work of the planning committee. This rough draft includes the following components: (a) a list of courses for the new program; (b) the objectives of each course; (c) the number of credit hours per course; (d) the identified program changes; (e) the justification or rationale for program change based on all of the data collected; and (f) an organization of program courses according to TSPC requirements. The document produced by the planning committee was simply a first-cut at curriculum revision; it was not intended to be a final draft of the elementary program. However, it has served as a vehicle for discussing permanent program revisions.

Staff Inservice

Another dimension of planning undertaken during the preliminary planning year was an appraisal of the information needs of the Teacher Education Division faculty members. If the project was to gain a commitment from faculty members in designing and implementing revised teacher-training programs, much information necessarily would have to be provided to them. In order to keep faculty members abreast of project planning, a program of faculty inservice was initiated. Faculty retreats were used to bring regular and special education faculty together with relevant others (e.g., public school personnel, program-approving agency members) in an atmosphere that would allow the participants to become better acquainted and to freely exchange ideas. Other attempts to communicate with faculty members included reports of project activities, informational memoranda, and a brown-bag, drop-in lunch where areas of interest were the topics of discussion.

Early in preliminary planning, it became evident that training objectives (i.e., to be field-oriented and competency-based) necessitated the commitment of project resources to the development of appropriate training sites in contiguous school districts. A program of public school inservice, therefore, was initiated to accomplish these objectives. As the project moves closer to implementing the planned new programs, inservice activities directed at potential field-training sites have accelerated.

PHASE II: ASSESSMENT AND REVISION OF TENTATIVE PLANS

The program-planning report developed during the first year of the project served as a catalyst for the planning and development activities that occurred later in the project. During a two-day faculty retreat the report was presented to College of Education faculty and other selected guests who, together, decided on strategies for continued planning. As a result of the discussions stimulated by the report, a number of substantive criticisms and recommendations were made.

The reaction of faculty members to the planning document was, at times, harsh. Several perceived the proposed new program in elementary education as a lay-on in which they had no ownership or commitment. The integration of training programs in the document had not provided for the prerequisite integration of personnel and their divergent ideas. Although the original project-planning model represented a logical way to distribute project tasks, it had not supplied ample opportunity for the direct involvement of the faculty. The planning document, however, aroused interest and a level of anxiety which were apparently necessary for the faculty to want to be involved in the project.

The experience gained over the first year of the project suggested that the design and implementation of an integrated teacher-training program was a much longer process than had been anticipated. A decision had been made to attempt a major overhaul of the elementary program rather than to add a few special education courses to the existing program. This decision required the planning committee to change the priorities of the content of the elementary program, that is, to eliminate content assigned a low priority to make room for new content which was seen as essential to a mainstream teacher. Such a procedure was threatening to many faculty members and raised questions of how decisions would be made, trust relationships among the faculty, and who was responsible for planning.

Task forces on Decision Making, Trust and Communication, and Dean's Grant Project Planning were organized to study the questions raised and to make further recommendations for revising the proposed program. All College of Education Divisions were represented in each task force.

The *Decision-Making Task Force* developed a model of decision making for the Division of Teacher Education faculty and a matrix to show governance procedures in the College and University. During subsequent faculty meetings, the model was presented and described. The faculty agreed to use the recommended procedures during committee meetings and as a vehicle for making decisions about program revisions. In addition, the process for implementing decisions was also determined. It includes the capability to assess when a decision actually has been made and can be implemented. An operational level of consensus was established at a minimum of 70 per cent approval.

The procedure provided for determining who was to be involved in making a particular decision and at what level this involvement would occur. For example, a faculty member may wish only to be informed of an impending decision in one case but to be involved in making the decision in another. Using this model, the degree of involvement in the actual decision is usually determined by the effect the decision will have on a faculty member.

The *Trust and Communication Task Force* used an individual interview technique to obtain faculty responses to a set of questions generated by the Project Planning Committee. The questions posed were related to expressions of concern by faculty members. The results showed that more faculty interactions were needed across departmental lines, especially between elementary and special education, for the Dean's Grant Project to progress. A report was presented to the faculty summarizing interview results and categorizing them to provide an overview of concerns. Faculty responses to the report were generally favorable, and it was agreed that the exercise had indeed generated an increase in communication and trust.

The *Dean's Grant Project Planning Task Force* was organized as an advisory group to revise the original planning model. Membership was voluntary, although faculty members having the strongest objections to the first-year planning document were specifically asked to join the task force. This group participated in the design of a three-year program development proposal and laid the groundwork for new planning strategies. Following the completion of these tasks, the planning task force disbanded; members of the group formed a nucleus of the study committee that would call for testimony from faculty members involved in the elementary education program.

At this juncture of development, the Dean's Grant Project was beginning to be responsive to the concerns of the faculty rather than attempting solutions to problems that were often seen as problems only by the project staff. Faculty members would make commitments to the project only when they understood the reasons behind curriculum change and could seek their own solutions to the problems of program integration. Up to this point, project activities were essential to provide the context and a catalyst for change, but they could not have resulted in actual curriculum revisions because of faculty resistance. A transfer of ownership of the new elementary teacher-training program was needed.

In what is referred to as the maturation stage of project development, program planning was transferred to persons with the responsibility for implementation. Payoff for faculty time and energy in making program revisions was the personal gratification that results from testing one's own ideas. This philosophy has enabled the Dean's Grant Project at the University of Oregon to produce a unique elementary teacher-education program that is generally acceptable to the faculty.

PHASE III: PROJECT MATURATION

Following the report of the Project Planning Committee, a request was directed to the Teacher Education Consortium to form a study committee to replace the "planning committee" established during the first year of the project. The purpose of the study committee was to examine the work of the planning committee and make further recommendations to the consortium. A major reason for the request was to bring the committee structure into line with the program development procedures established by the Teacher Standards and Practice Commission.

As a result of the request, the consortium appointed a Dean's Grant Study Committee which was co-chaired by the Eugene Education Association president and comprised 3 local teachers, 3 administrators, 4 faculty members, and 2 students. The Study Committee was given the task of providing direction for planning and suggesting a means to operationalize the concepts inherent in the project.

The Consortium Study Committee, in considering a management problem — that of expediting curriculum change — decided to call for testimony related to existing programs and their proposed changes. The testimony was to be given on a regularly scheduled basis and under a standardized format for program development. This procedure deferred the responsibility for final program recommendations back to the faculty that was expected to implement the new program.

A memorandum from the Study Committee was mailed to faculty representatives in Art, Music, Physical Education, Health, Marketing, Educational Policy, Counseling, Educational Psychology, and Curriculum and Instruction. The memorandum, requesting attention to a Study Committee motion, called for faculty and student participation.

> Every department of the University that offers a professional course for the elementary teacher-education program is invited to submit current or revised instructional objectives with credit hours attached to each objective or cluster of objectives. The departments also are invited to submit any information they wish to explain or clarify their lists; and they are invited to submit a description of the competencies they would expect the student to have mastered prior to taking the professional course.

Guidelines for participation included a format for listing and/or rank ordering goals and objectives and recommended program modifications from each area of concentration. Dates for testimony to the committee were established and the goal was set to complete program revisions at a final meeting.

During 1976-77, the challenge to redirect programs had a far-reaching effect on the elementary education faculty. Faculty members had been progressively involved with Dean's Grant Project activities and had participated in committees, task forces, retreats, and workshops, but the direct impact of program change had not been fully accepted. The directive for program revision and presentation from the Consortium Study Committee required immediate action. A one-day retreat was held in April for elementary education faculty members to focus immediately on the development of a valid, practical program reorientation of teacher education. Over the next few weeks, several meetings were held that resulted in a formal presentation to the Study Committee. The presentation was well received and aroused considerable excitement among teachers, administrators, and students.

Under the direction of the elementary education coordinator, the elementary education faculty discarded all courses in the existing program. Program areas previously thought to be impervious to change became vulnerable to revisions during the week of debate leading up to the presentation to the Study Committee. The program outline that resulted from discussions among the elementary education faculty members incorporated the basic substance of the original program-planning report. At several points, the new program design exceeded and improved upon recommendations in the earlier planning document. Faculty members in other program areas (e.g., Art, Music, and Physical Education) also responded to the planning document by presenting their own program modifications to the Study Committee.

Although some decisions emanating from the consortium are compromises, they are decisions that all faculty members can live with comfortably. With this conclusion in mind, it has been important, during planning, to protect against overplanning, that is, planning so specifically that interest groups must accept or reject the planned program without offering suggestions themselves.

The culmination of this process was a one-day Study Committee meeting to review and respond to the data presented. The program that resulted from this activity is currently being planned in depth. It will be taken before the state accrediting agency for approval in Spring 1978. The total program will be operational in the 1978-79 academic year and will replace the existing elementary education program in 1979-80; it will be the only program at the University of Oregon to prepare elementary teachers.

In seeking program approval from the state accrediting agency, it is necessary to submit a specific description of each course in the new program. During the forthcoming year, the elementary education faculty and faculties in allied instructional areas (e.g., Physical Education, Music, Art) will be required to expand the present framework for program change into courses. This task is being accomplished by placing faculty members on committees that reflect their interests and expertise. The committees correspond to major program areas: (a) Reading/Language Arts; (b) Mathematics; (c) Curriculum Issues; (d) Teaching Strategies; and (e) Field Placement. Faculty members on each committee will develop course descriptions, objectives, and evaluation strategies.

Extensive program revisions require considerable faculty time for refinement and implementation. Seemingly, the best option available to the project for accomplishing this task is providing faculty incentives in the form of overload salaries. For example, during summers or other noncontract periods, faculty members had been able to develop new courses or refine existing courses in compliance with the broader specifications of the new elementary program. This option has the advantage of insuring more product per dollar spent and has involved a large number of people over a short period of time.

Continued formal and informal interactions with consortium subcommittee members helped to insure an information flow related to program development. Informal communication is planned and two formal meetings will be held during 1977-78 (one in Fall and one in Winter) to provide an up-date on program planning. Additionally, the subcommittee approval will be sought in the Spring prior to program submission to the Teacher Education Committee and state accrediting agency. Faculty representatives for the allied instructional areas, special education, and secondary education also will continue to meet regularly with the elementary education faculty to assist in integrating program goals, objectives, and teaching strategies with those in other areas.

Pilot Courses

Two pilot courses were offered during the second year of the project with the purpose of generating data on possible delivery strategies and content for the new elementary education program. The first course was a combination seminar and field experience that was co-taught by special and regular education faculty. Pre-post tests were administered to students to assess their attitudes toward teaching exceptional children in a mainstream setting. The results indicated that students become more accepting of the idea of teaching handicapped students as they have more experience with them. Several students who had questioned their ability to accommodate handicapped students had, by the conclusion of the course, altered their opinion and expressed a willingness to teach students with a wide range of skills and/or behaviors.

The results of this pilot effort are seen as very tentative. While changes in the students' perception of teaching exceptional children were considerable in some instances, these changes cannot be attributed solely to the seminar. However, the team-taught seminar demonstrated to the College of Education faculty that collaborative teaching arrangements between special and regular education faculty are valid for delivering the content of the new elementary education program. Team teaching will be an important element of the new program.

The seminar also provided a demonstration of the impact of field experience on teachers preparing to teach in a mainstream setting. This impact was seen most vividly in the interactions of students with handicapped children. The importance of field interactions with handicapped children, as demonstrated by the seminar, has led to the recommendation that the new elementary program contain a field experience with exceptional children.

The second pilot course for elementary education students, *Mainstreaming Problems and Concerns,* was implemented following a request from local school district personnel for a course dealing with classroom skills in the areas of mainstreaming. This course was team taught by the coordinators of elementary education and special education. Topics requested by the participants fell, generally, into the following areas: (a) student assessment, placement and programing; (b) behavior modification and classroom managment; and (c) support services or resources for children with specific handicaps. The course reaction inventory indicated above-average value to the teachers. The content of this course now has been incorporated into the recommendations for the new elementary education program.

Staff Inservice

Proposed program revisions have necessitated new functions for some faculty members and, thus, an extensive and ongoing inservice training program is required. Both formal and informal activities have been used. Faculty retreats, social get-togethers, periodic information memos, and the College newsletter have been the primary means of keeping the faculty informed on mainstreaming and project developments and soliciting their continued participation in project planning.

Although most inservice activities appeared to have some impact on faculty members, they generally failed to reach project expectations. Memoranda and other distributed materials are too easily dismissed and the College newsletter is skimmed, not read. Personal interactions were a bit more successful but did not, by themselves, produce the knowledge development that most faculty members required.

Rather than supplying the faculty with pertinent information, the project staff attempted to develop the faculty members' interest and incentive to seek newly required information. To use an old saw, we could lead the horse to water but we couldn't make him drink; however, if the horse became thirsty, it would seek and find its own water. This bit of down-on-the-farm philosophy has worked considerably better for the Dean's Grant Project at the University of Oregon than the original inservice model.

A mainstreaming resource center has been established to provide the faculty and students with information on mainstream developments and teaching exceptional children. Letters requesting material and information on mainstreaming have been drafted and sent to publishers, independent authors, and projects around the country. As material is received, it is catalogued and placed in a centrally located room in the College of Education Building. Topical areas of the current materials include background information on mainstreaming, administrative development, legal aspects, curriculum materials and methods, counseling and affective components, measurement, specific handicapping conditions, and teacher-training methods and materials.

A second inservice thrust necessitated by the impending program revisions focuses on public school personnel as a means of preparing sites as practicum placements for teacher trainees in the new program. Inservice activities for these personnel have taken the form of workshops, consultation, and easy access classes. We also have used another procedure to develop and refine field placement sites: University faculty work closely with public school personnel to develop model mainstreaming programs in local elementary and high schools. Such skill areas as diagnosis, remedial instruction, and classroom management are emphasized in the model programs.

Other Steps in the Stairstep Plan

Since the inception of the project, the secondary education faculty has been actively involved in discussions and task force activities related to program revision. Faculty awareness of mainstreaming implications at the secondary level has been expanded through attendance at two faculty retreats and involvement in inservice activities related to student assessment and individualized program development. Additionally, the faculty was involved with student-teaching supervision in a range of classrooms, including those containing handicapped students.

During the second year of the project, students completing certification in secondary education and the M.A. degree in special education established a pilot project for mainstreaming junior high students at one of the local schools. This project has been refined and will be continued during the project period. Greater attention will be given to curriculum renewal at the secondary level as the project moves into its next year of operation. The same basic change strategies employed with elementary education will be used for the secondary program.

The conceptualization of a five-year teacher-education program has begun. The purpose is to integrate the substantive and field-based components of the mainstream teacher-education model to meet the requirements for certification by the Oregon Teacher Standards and Practices Commission. To this end, administrative personnel of the College of Education and Division of Teacher Education have engaged in extensive discussions with University, public school, state education department, state accreditation agency, and legislative personnel to procure the appropriate official approval required for a five-year program. Agreement on all fronts has been achieved, insofar as such approval is required for the continued exploration of the concept. Additional approval will be required when the program begins to take on substance.

PHASE IV: PREPARATION FOR IMPLEMENTATION

Having made a commitment to revise the teacher-training programs at the University of Oregon, the faculty members are now confronted with the challenges inherent in implementing a radically different elementary education program. Aside from catalog descriptions, student handbooks, and other materials which will be developed, some faculty members will be teaching entirely new courses. During the first year of implementation, the old elementary program also will be maintained concurrently with the new program. A dual program must be provided during this transitional period to assure that students starting under the old requirements can complete their programs for certification.

The preparation of faculty members to teach courses in the new programs is necessary. In considering this aspect of implementation, the initial tendency was to underestimate the potential of the regular education faculty. As the project moves toward implementation, it is apparent that the faculty has the capacity to grow very quickly in areas of weakness. However, the most efficient means for the faculty to attain required growth is not yet clear. This issue will be best determined by those faculty members who prefer assistance with their courses. It will not be solved unilaterally by forcing assistance on individuals. Team-teaching situations are planned to facilitate reciprocal skill exchanges between special and regular faculties.

Obstacles to Successful Project Development

The Dean's Grant Project experience at the University of Oregon suggests that certain elements are necessary to promote successful outcomes. Since curriculum renewal projects are largely influenced by the uniqueness of each institutional system and the population it serves, a single process for conducting Deans' Grants Projects cannot be recommended. What has worked for the University of Oregon may not work elsewhere. However, many obstacles to successful project orchestration are common to all projects. Some of these obstacles are self-imposed and could be averted with proper planning. Using the University of Oregon experience as an example, seven major obstacles to successful project operation can be identified. This selection does not mean that a project should be concerned only with the obstacles listed; many others may appear. The following seven obstacles reflect issues that, at one time or another, have been troublesome to the Dean's Grant Project staff at the University of Oregon: (a) project ownership; (b) time; (c) payoffs; (d) planning; (e) presumptuousness; (f) commmunication; and (g) trust.

PROJECT OWNERSHIP

Perhaps the most essential element of successful project operation is faculty commitment. If project goals are centered around the integration of regular and special education, as in the case of the University of Oregon project, their attainment is largely determined by the combined efforts of faculties in both areas. The degree of effort required to overcome barriers perpetuating segregated teacher training and to develop new course offerings is substantive. This effort is generated only when faculty members are committed to the ideals of the project.

Our experience suggests that faculty commitment is rarely present at the time the initial project proposal is written. Rather, a potential exists that must be nurtured after the award of a Dean's Grant. Developing a commitment, at most institutions, is a gradual process that is influenced considerably by the amount of ownership the faculty feels in the project. Faculty members who are encouraged to direct their own program revisions are also given the opportunity to take pride in their accomplishments.

Ownership, as an obstacle to project success, was not dealt with successfully during the early phases of the Dean's Grant Project at the University of Oregon. Faculty members were informed of project activities and asked to participate at various junctures of program development. Although an initial revision of the elementary education program was drafted from faculty suggestions, faculty members had not been personally involved in its creation. They felt little ownership in the proposed revisions. Therefore, they lacked the necessary commitment to make programmatic changes based on the proposal. The project had to retreat to a position where program ownership could be appropriately distributed among all faculty members with an interest in program revision. A stronger faculty commitment was needed that could withstand the test of commitment which is always strongest as one moves toward closure on an issue.

The problem of ownership was almost totally corrected by shifting the primary responsibility for elementary program development from project planners to the elementary education faculty. A new elementary program was produced and a much higher level of faculty commitment to the project resulted. A moving force behind the increased commitment was the appointment of the elementary education coordinator to the project management team (see Fig. 2). The individual assuming this role is uniquely trained in both special and regular education and commands the respect of the faculties in both areas.

TIME

Faculty members in the College of Education at the University of Oregon are extremely active. During the last two years, they have been engaged in no less than seven major program development efforts and are heavily involved in professional activities at state and national levels. To such an active faculty, time is a precious commodity. Therefore, when faculty time was donated to the Dean's Grant Project, whether in committee work or other forms, it had to be used effectively. The same imperative holds for public school personnel and students who have given freely of their time in efforts to reach project goals.

Since the faculty in elementary education had been working comfortably within the guidelines of a relatively good teacher-education program, the resistance to developing a new program was understandable. New program development not only breeds insecurities but, also, is a tremendously time-consuming activity.

The problem of the investment of faculty time in curriculum renewal was approached along two dimensions: (a) Whenever a faculty member contributed to the project, evidence of the contribution was made visible. Although the individual's suggestions could not always be used, they were acknowledged and reinforced. (b) When the new program is fully operational, it will not add to the faculty members' responsibilities. Because the new program is more efficient than the old, it will result in a

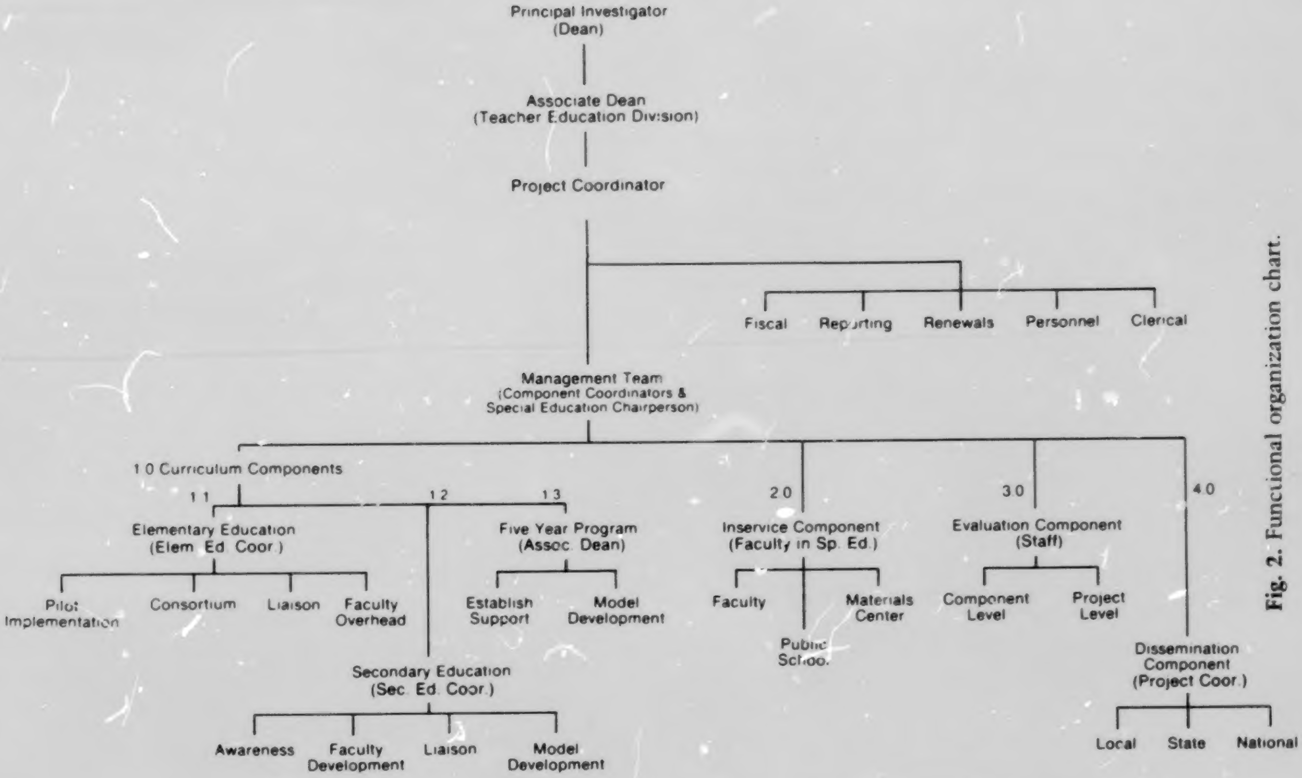

Principal Investigator
(Dean)
Associate Dean
(Teacher Education Division)
Project Coordinator
Fiscal
Reporting
Renewals
Personnel
Clerical
Management Team
(Component Coordinators &
Special Education Chairperson)
1.0 Curriculum Components
1.1
Elementary Education
(Elem. Ed. Coor.)
Pilot
Implementation
Consortium
Liaison
Faculty
Overhead
1.2
Secondary Education
(Sec. Ed. Coor.)
Awareness
Faculty
Development
Liaison
Model
Development
1.3
Five Year Program
(Assoc. Dean)
Establish
Support
Model
Development
2.0
Inservice Component
(Faculty in Sp. Ed.)
Faculty
Public
School
Materials
Center
3.0
Evaluation Component
(Staff)
Component
Level
Project
Level
4.0
Dissemination
Component
(Project Coor.)
Local
State
National

Fig. 2. Functional organization chart.

saving of faculty time. Thus, the faculty will be freer to pursue professional interests outside the time devoted to maintaining the training program.

Another consideration to be dealt with is the shifts in staff responsibility required to implement the proposed program. These shifts demand a greater involvement of special education faculty in the elementary education program. Therefore, trade-offs of some responsibilities must be made. In searching for possible trade-offs, it became apparent that several regular faculty members had skills that could be used very effectively in the special education graduate program.

PAYOFFS

Most of us are rather hesitant to expend much effort without the anticipation of rewards. The questions that Deans' Grants Projects must ask are (a) what are the professional and personal payoffs for making curriculum change? and (b) how can these payoffs be delivered?

During the early stages of the project at the University of Oregon, insufficient attention was given to generating personal payoffs, most of which could have been associated with individual involvement in project activities. People simply could not take pride in accomplishments that were not their own. Both personal and professional payoffs related to project activities should have been available to all persons with an interest in project outcomes. To create a reward structure that selectively reinforced faculty was worse than no reward structure at all. Restricted payoff systems tend to promote jealousy among faculty (or other project participants) and to give credence to the notion of an in-group.

Short- and long-term payoffs are available through the Deans' Grants Projects. Upgrading the quality of an instructional program and, therefore, its competitiveness, allows an institution to attract the best students and, thus, to give positive visibility to the people associated with the "good" program. New programs always provide opportunities for research and writing. This payoff already has been capitalized on by faculty members in the University's elementary education program. Involvement in new curricular areas stimulates professional growth which, in turn, stimulates personal accomplishment. These vehicles for payoffs, of course, are in addition to the basic payoff—pride of accomplishment.

PLANNING

Impersonalized planning is essentially a communication problem in that people and their feelings are not taken into account. Several faculty members at the University of Oregon had a good deal of personal investment in the existing training programs because they had created them. When a data base was established to rate the new elementary education program, criticisms of the old program were erroneously but understandably viewed as attacks on the professional abilities or ideas of the creators. These feelings diminished when the faculty members were invited to participate fully in the curriculum renewal process.

Other forms of impersonalized planning occurred. On occasions, project staff neglected to involve persons who had recognizable expertise in the areas under consideration. Consequently, feelings were hurt. Perhaps most costly to the project development, however, were the inferences resulting from initial planning that suggested the superiority of special education. This attitude continues to exist but it has been moderated by the realization that regular education has much to offer instructionally and, further, that regular education faculty are worthy colleagues of special educators.

PRESUMPTUOUSNESS

In striving to achieve project objectives, it is relatively easy to lose sight of reality and to assume that faculty support exists for each program development phase. When it does not exist, project staff appear presumptuous when they continue to engage in unsupported activities. Although a few people usually end up doing the actual work in curriculum development, they must continually check the perceptions of the colleagues whom they represent.

One form of presumptuousness is submitting a Dean's Grant proposal without the knowledge of the persons who will be affected. If the proposal is funded, the institution is committed to a plan of action that no one has agreed u[illegible]uch project planning can be disastrous to development because it promotes mistrust and a feeling that decision making is vested in only a small proportion of the faculty.

COMMUNICATION

Effective communication is an essential element in any Dean's Grant Project. Information can be delivered in a variety of forms but it is most effective when it is conducted on a personal basis, especially when the contents of communication involve sensitive program change issues. Informational materials such as newsletters and reports can be valuable sources of information, but too often they are ignored or misinterpreted. An example of misinterpretation would be the Dean's Grant Project Planning Report that was submitted to the faculty at the University of Oregon. The report clearly presented a first-cut at curriculum revisions. However, to many faculty members, the report represented a program that had already been decided upon. Had this report been discussed with each faculty member prior to its release, several concerns could have been allayed.

There appear to be some general requirements of successful communication structures within Deans' Grants Projects. (a) A representative system of governance works well in our democracy but it has limitations for Deans' Grants Projects. Individuals who are affected by curriculum change must and will demand to be involved directly in making those changes. (b) How you communicate an idea is often more important than the idea itself. The best ideas will be rejected if they are perceived as being forced on faculty members. (c) If information, ideas, or critiques are requested from faculty, evidence of their use must be shown. Although each idea cannot be incorporated into a program model, contributions can be acknowledged. (d) Communication should be reciprocal and provide an opportunity for exchanges of ideas or concerns.

TRUST

Mistrust is often generated by the unknown. Special education and regular education have developed separately along parallel pathways. This separateness has restricted the access of each to the other. Impressions of programs or colleagues are too often formed on the basis of limited personal interactions or hearsay. The same condition is true for Deans' Grants Projects. Project staffs may know what they are doing but others may be required to guess.

Efforts of the Dean's Grant Project at the University of Oregon to bring special and regular education faculties together formally and informally have helped to eliminate many unknowns and false stereotypes. In attempting to meet the problem of trust headon, the faculty members found that philosophical differences between programs were not so great as they had imagined or feared.

Conclusion

Although the University of Oregon program is only in the beginning stages of implementation, the extensive planning which has taken place in the project is characteristic of the sweeping changes in teacher preparation resulting from the mainstream movement. The Dean's Grant Project has been an impetus to implement change in the regular education teacher-training program. However, such change will have effects on other training programs also. Specialized training programs still are maintained at the University of Oregon, but the emphasis of these programs is shifting gradually to the preparation of educational support personnel and teachers of more severely handicapped pupils. This shift in emphasis in special programs reflects not only the growing need for support personnel in mainstream programs but, also, the changing composition of many public schools that are beginning to serve severely handicapped children.

These specialized training shifts, when coupled with the changes produced by the Dean's Grant Project should truly allow us to prepare personnel to accommodate a continuum of individual difference in children in the public schools.

Section 3

Alternative Approaches to the Development and Implementation of a Dean's Grant Project

The implementation of any innovation will encounter certain similar problems and concerns among the settings in which the changes are initiated. Thus, to some extent, we can learn from the experiences of the pioneers. On the other hand, we know that the process of implementing change also will reflect characteristics that are idiosyncratic to the settings and personnel involved. These differences, although predictable in their occurrence, make complete generalization from one situation to another impossible.

The Deans' Grants Projects represent an emerging trend within institutions of higher education. Any cross-project examination reveals both commonalities and differences in development and implementation. For example, the overriding theme of the Deans' Grants Projects is to enhance the preparation programs of personnel who will teach handicapped children in regular classrooms. This is, of course, the purpose underlying the concept of the Deans' Grants. The differences occur in the strategies used by the various projects to implement this common goal. The three case studies (the Universities of Cincinnati, Kansas, and Michigan) included in this section represent diverse approaches to the same mission. Although the reader can see commmon direction in such areas as curriculum development and staff development, the specific implementation strategies range from guest presentations, workshops, visitations, team teaching, and faculty retreats to module development. Moreover, the personnel who are involved in the activities vary from predominantly college faculty (usually from diverse areas, departments, or programs) to public school personnel and persons from other agencies, such as, state departments of education, teachers' organizations, and statewide education committees.

To gain a complete picture of all the similarities and differences, one would need to look at all the Deans' Grants Projects. Such a comprehensive view is unfeasible for a publication; thus we are limited to sampling the projects to show the different routes that are being taken to the same goal. The projects selected for this section permit the reader to follow in a chronological sequence the process of developing and implementing a Dean's Grant Project and, we hope, the opportunity to gain some insights into the process.

A unique characteristic of the people who are conducting Deans' Grants Projects is the willingness to share their experiences. At a time when territoriality, jealousy, and competition are rampant among the recipients of many federal grants, it is refreshing to be part of a network of projects in which everyone is open and candid with each other. The case studies included in this section typify the honest sharing of both successes and failures that is found among current Deans' Grants project personnel.

Peer Teaching and Participation

Hendrik D. Gideonse[1]
University of Cincinnati

ABSTRACT. *The response of the College of Education and Home Economics, University of Cincinnati, to the implications of Public Law 94-142 began 17 months before the passage of the Act. Stimulated by a six-member interinstitutional network to begin planning toward the requirements created by the concept of mainstreaming, the College began systematic planning in Fall 1974. The model pursued by the College has involved the participation of nearly the entire faculty. Peer teaching has been a central component. A core group of faculty has carried the principal burden of guiding and facilitating the work. The dean has played an active central role. Faculty members throughout the College have been compensated on an honorarium basis for the extra time demanded of them. The project is in its third year of Dean's Grant funding. Accomplishments to date include (a) the planning commitment to add two additional positions out of non-federal funds to meet the instructional resource requirements of mainstreaming; (b) documented changes in the instruction currently offered in the College by more than 70 per cent of the teacher-education faculty as a result of awareness brought about by project activities, and (c) the emergence of University of Cincinnati participants as recognized leaders in Ohio on mainstreaming.*

Writing this case study proved to be more of a puzzle than I expected. The manner in which various mainstreaming activities have been supported at the University of Cincinnati has required us to go through a series of overlapping stages.

More often than not, we have been in the position of having to tell people what we intend to do *next* year before we have been able fully to grapple with what we ought to be doing *this* year. Graphically, this phenomenon can be illustrated as in Figure 1. It is a quick introduction to the Cincinnati project and the description in this chapter. Each major phase is presented separately in the text even though many activities overlapped each other. Our total experience is then briefly analyzed in a concluding section.

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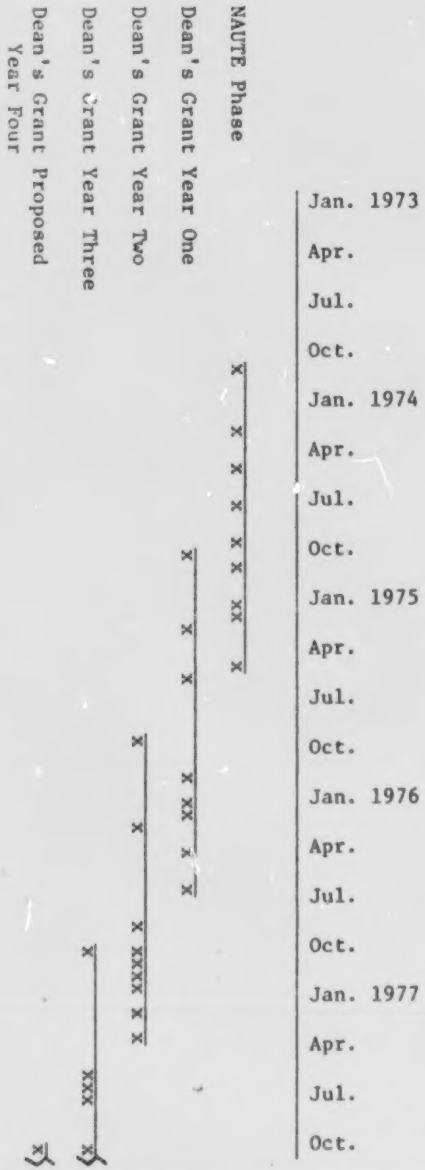

Key: x marks major events, e.g., meetings, workshops, seminars, grant proposals, decisions, etc., which are discussed in the text of the paper.

Fig. 1. Major activities of the Dean's Grant at the University of Cincinnati in relation to grant phases.

This case study is based on the accumulated chronological record of the project, some 2½ linear feet of memos, drafts, reports, working materials, proposals, and evaluative data. The writing of this chapter would never have been possible without the commitment, assistance, and energies of a core group of faculty and school persons[2] who have carried the Cincinnati Dean's Grant Project forward.

The College of Education and Home Economics is one of 16 divisions at the 36,000-student University of Cincinnati. We have slightly more than 100 faculty members, 2500 students (evenly divided between graduates and undergraduates), and more than 30 degree and certification programs. We are governed in our policy by a Senate composed of faculty, students, and administrators. Our policies are executed by an Administrative Council composed of seven department heads, the dean, associate dean, and assistant dean. The seven departments of the College are Curriculum and Instruction; Early Childhood Education; Educational Administration and Counselor Education; Health, Physical Education, and Recreation; Home Economics and Vocational Education; Learning, Development, and Social Foundations; and Special Education and School Psychology.

The NAUTE Phase, 1973-75

The roots of the mainstreaming thrust of the College of Education and Home Economics, University of Cincinnati, lie in a project launched by the Study Commission on Undergraduate Education and the Education of Teachers (SCUEET) in November 1973. That project, the Network for Alternatives in Undergraduate Teacher Education (NAUTE), was designed to encourage innovative efforts under way at six colleges of education by affording key administrators an opportunity to meet to work on organizational reform, faculty development, and the assessment of personal leadership performance. Ably begun under the coordination of Tom Pace (University of North Dakota), and later carried forward to equally salient effect by Jeanne Frein (initially, the University of Massachusetts; later, the University of North Dakota) and her co-coordinator Charlotte West (University of North Dakota), NAUTE constituted an invaluable professional peer-counseling support system to a group of senior teacher-education administrators[3] who were engaged in various attempts to bring about fundamental changes in their organizations.

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[2] Special thanks go to Rita Klenke, Eleanor Thurman, Natalie Evans, Robert Price, Dom Romeo, Michael Curtis, Al Ciani, Linda Amspaugh, Helgola Ross, Ginny Paine, and Marialyce Knoll of the College of Education and Home Economics, University of Cincinnati; Gretchen Estreicher of the Cincinnati Public Schools; and Fred Blake of Greenhills-Forest Park City Schools.

Our mode of operation was to meet several times a year to discuss agendas which had been prepared by the participants and which were designed to review administrative, organizational, curricular, or other kinds of problems/aspirations that we were encountering, and to offer advice, counsel, and constructive criticisms. It was an unbelievably powerful influence on me; the idiosyncracies of personal style, organizational setting, and institutional history taught me that a high degree of individuality of approach to the initiation and facilitation of organizational change is to be expected. That understanding proved to be an important underpinning of our mainstreaming efforts at the University of Cincinnati; it is also an idea that readers of case studies looking for models would do well to heed.

SCUEET funds for NAUTE were running out by the Spring of 1974. In casting about for monies to continue the modest effort we had begun the preceding Fall, we engaged in conversations with Edwin Martin, Deputy Commissioner of Education, Bureau of Education for the Handicapped, U.S.O.E., about our activities. The message of the individualized learning going on in the NAUTE group was apparently not lost on Dr. Martin; he asked if we would capitalize on that growing understanding and undertake a conceptual analysis of the issues and concerns related to the concept of mainstreaming as it applied to the preparation of regular educators to serve handicapped children. The proposed project was not to be limited to conceptual analysis; the six participating institutions were asked to involve themselves through the participation of faculty members as well as the administrators directly involved in the NAUTE group.

NAUTE received the grant from BEH and proceeded to plan and hold an initial conference at Fordyce House in St. Louis; the conferees were four persons from each participating institution. The Cincinnati conferees were the heads of the Departments of Special Education and School Psychology, Curriculum and Instruction, and Educational Administration and Counselor Education, and this writer. At the conference, one characterized by light structure and much opportunity to identify and address agenda items related to the impact of mainstreaming on teacher education, we discussed many issues ranging from definitional questions, stakeholders, political concerns, curricular implications, to philosophical issues.

At the second meeting (May 1975) of the 24 participants from the six institutions, agenda items were more tightly focused on matters that had been identified as an outgrowth of the first gathering in St. Louis. We examined curricular models, research and successful practices, legal is-

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[3] The members of the group were Dean Corrigan, University of Vermont (now at the University of Maryland); Ivan Dahl, University of North Dakota; Robert Egbert, University of Nebraska; Abe VanderMeer, University of Alabama; Hendrik Gideonse, University of Cincinnati; and, later, Dale Scannell, University of Kansas.

sues in special education, and the relation of sex-role stereotyping to mainstreaming issues.

The two conferences provided opportunities for the three department heads and me to consider, with others and by ourselves, an array of issues pertaining to mainstreaming. Upon return to our campus, we shared our experiences with the Administrative Council. Our intent was to be broadly informative and to lay the groundwork for the forthcoming project that, by May 1975, we knew we were going to be able to undertake. Because further funding for NAUTE was not approved, the May meeting in Chicago was the last for the group under NAUTE sponsorship.

Dean's Grant, Year One, 1975-76

THE PROPOSAL

During Summer 1974, 17 months before the enactment of Public Law 94-142, what had been a glimmer the preceding Spring when the NAUTE members had talked with Dr. Martin became a reality. A network of Deans' Grants was to be established to support the developmental changes necessary to pre-service teacher-education programs relative to training personnel for mainstreaming. Based on the continuing conversations in May, June, and July within the Administrative Council, we put together a proposal in September which was approved by the Administrative Council before its transmittal to Washington.

Our plan called for the appointment of a faculty member at the associate professor level, a secretary, two part-time program associates, some inservice monies for faculty stipends, and the usual support costs of travel, supplies, and the like. The associate professor position was deemed necessary in order to attract someone with experience who could function on a peer basis with the current faculty. In addition, a cross-College working group, chaired by the dean, was to be established. All programs were to be examined to ascertain where suitable revised or newly built curricular and practicum experiences might be placed. We saw ourselves building prototype experiences and evaluation instruments and initially implementing new learning experiences for our students. We asked for $50,000.

In February 1975, we learned that we were being recommended for a $20,000 award and we were asked to submit a revised proposal. The reduced grant award and the request for revision turned out to be the single most salutary event in the development of our approach to mainstreaming. It effectively forced us to reconsider the congruence of our rationale and approach and to devise an alternative means of accomplishing our aims consistent with our starting assumptions. Also, by the time we heard about our reduced award, we had completed the initial interinstitutional conference at St. Louis under the NAUTE grant and had proceeded considerably further in our understanding of the dimensions of the task we had taken on.

The assumptions we had stated in our original proposal were as follows:

1. Innovation had to be by reconceptualization and reallocation rather than addition of resources.
2. The activity had to be cross-College.
3. New patterns of relations would be necessary with agencies outside of the College.
4. Special educators would be particularly squeezed upon final passage of Public Law 94-142. They would need to serve severely handicapped children and help regular teachers to address their new responsibilities for handicapped children.

THE REVISED PLAN

Despite suggestions from BEH to use a person of lesser rank than associate professor, we decided, in consultation with the Administrative Council, that such a substitution would make the project less effective. We felt strongly that anyone below the associate professor level would have great difficulty establishing the peer relationships required for successful implementation of the proposed activities. Therefore, while attempting to keep our key assumptions intact, we devised an alternative proposal: to use the approved funds to support (a) 14 faculty members and related participants for 15 days of workshops during the year; (b) a graduate assistant to coordinate, facilitate, and link the 14 persons together; and (c) per diem costs for two weekends of off-campus time to follow a major two-week workshop to be held in June of the initial project year. The purpose of this workshop was to develop curriculum materials, determine practicum arrangements, and identify and devise organizational requirements to achieve the aims of our original proposal.

Once the revised plan was developed, agreed upon, and submitted to BEH for review and approval, I asked each department head to identify faculty members and possible school persons who might wish to participate in the experience and who would be well-suited to the new task. It was decided early that special education would be somewhat overrepresented in the working group and that department heads would not be involved, in order to reserve the maximum number of positions for faculty (nonadministrative) participants.

As soon as the key group — 11 faculty members, the graduate assistant, and two school people — was identified, meetings were held to plan the anticipated workshop.

The Workshop, June 1975

Prospective participants were given copies of the original proposal, the revised plan, and a memorandum of assessment of the St. Louis

(NAUTE) meeting, which I had prepared. They were informed that the workshop was expected to be an intensive experience and that they would plan it jointly with me as the project director. All participants were to be compensated for their time.

Several meetings with the core faculty in mainstreaming and the school people were held that Spring. With the cooperation of the assistant superintendent from Greenhills-Forest Park (Fred Blake), we devised a two-week workshop. The first half was to be a "hands-on" teaching experience during which all 14 participants would work with a group of 20 mainstreamed youngsters. During the second half, we would try to tease out of the initial week's experience the implications for the professional preparation programs of the College.

The children invited to the workshop included some nonhandicapped pupils and others diagnosed as educable mentally retarded, epileptic, learning disabled, and cerebral palsied. Parents were told the purpose of the session and that the instructional program would be held in the morning and would focus on the forthcoming American Bicentennial.

Workshop participants held a planning session with Robert Kirby, a special education teacher we engaged to help us throughout the first week of the workshop, to set the curricular tasks for the first day. Thereafter, each afternoon was used to debrief participants on the morning's experience and to plan the curriculum for the next day. Although the participants were offered the opportunity to see the folders on each child, they decided not to in order to enter the teaching experience without preconceived notions of who the children were.

At the beginning of the second week of the workshop, the participants, now back on the University campus, addressed the implications of what they had experienced with the children. Without exception, the faculty had been profoundly affected by what had happened. The need for greater content knowledge about handicapping conditions, the difficulties even the special education faculty had in determining, based solely on their instructional experience with the children, who was handicapped, in what ways, and who was not, the feelings (of many different kinds) they experienced during their week with the children, and their conclusions about the need to approach things very differently, welled up within all the participants.

By Wednesday of the second week I was summmoned to the conference room. (I had elected not to participate fully in either the first or second week, although I was available if I was needed and I visited the classroom the last day.) The walls of the conference room were covered with newsprint. The chalkboard was filled. A "grand design" for the reformation and reorganization of the College had been prepared and my endorsement was sought.

At this point, it is necessary to step backward in time a bit. When I joined the College in the Winter of 1972, I was the sixth dean in as many years. Immediately, the College set out upon a goal-defining, governance reorganization process, culminating in a decision, in January 1973, to undergo a thorough reformulation of programs. That process had been undertaken immediately. For most programs it was completed by June 1974. The June mainstream workshop, in short, was but a year removed from an exhausting and totally encompassing program redesign process.

At the conclusion of the workshop participants' comprehensive presentation, I made three comments: (a) I observed, on the basis of the comprehensiveness of their proposals, that the experience of the preceding week had been powerful, indeed. (b) I recalled the redesign process, the major initial effort of which had been only recently completed. In effect, I was raising the question of whether their conception was viable given what had just occurred. (The fact that they were willing and able to come up with a conceptually whole approach was, in part, a testimony to the significant success of the earlier effort.) (c) I asked them to consider the experiential base of their peers that would engender understanding and acceptance of the recommendations embodied in their proposal. It was fairly clear that my observations were a cold shower and a wet blanket. We then processed their work, my reactions, and our feelings.

Out of the dialog came an alternate proposal. It entailed re-examining their individual professional roles and undertaking self-generated assignments to put into operation the results of their experiences and explorations within the parts of the professional training programs for which they were responsible. Each faculty member agreed to make an explicit "contract" with her/himself to do something different in the course of the coming academic year; progress toward the fulfillment of the contracts then would be the focus for the forthcoming follow-up weekends.

Additional Activities

Faculty participants in the June workshop were asked to prepare their contracts by the start of the Fall Quarter, 1975. Activities to fulfill those contracts began immediately.

Two important events then occurred: In November 1975, Public Law 94-142 was enacted; then, early in December, a letter, which was to have a significant effect on our timetable, was received from Keith Beery, Director of the Institute for Independent Educational Research, inviting us to participate with four other universities in a coordinated mainstreaming project. As dean, I was immediately interested. In many ways, the project looked very much like the NAUTE project which had ended the preceding May. It would have provided a support network mutually beneficial to the administration and faculty of the institutions working together. Furthermore, Beery's proposal was almost exactly in tune with our assumptions and approaches. It looked like a natural for us. All that it required was institutional commitment.

I shared with the core faculty in mainstreaming the Beery proposal and policy statement to present to the Senate, the policy body of the College. The statement committed the College to reflecting the implications of mainstreaming in its professional programs, signified our intentions with respect to Public Law 94-142, and qualified us to participate in the Beery effort. It is a credit to the impact of the June workshop experience on the core faculty members and to their persuasiveness within their departmental deliberations that the College Senate adopted this explicit policy statement on mainstreaming. I treated that policy administratively by scheduling its implementation coterminous with a major reconceptualization of program then being launched to bring us into compliance with institutional standards adopted, in December 1975, for teacher-education programs in the State of Ohio. The concern with mainstreaming, thus, became one of a host of other matters the College would be addressing as we undertook to comply with the new standards.

As it turned out, Beery's proposal was not funded, but the benefit to the College was a somewhat earlier attentiveness to mainstreaming as a *policy* matter than might otherwise have been the case.

Two weekend sessions were held with the core faculty in mainstreaming during the academic year. At the first, we explored the now more-fully-absorbed impressions of what had happened, how the faculty members were progressing on their individual contracts (which ranged from establishing new practicum assignments, building curricular modules, to identifying the parameters of the redesign of entire course sequences), and what the next steps ought to be for the College as a whole.

Because workshop participants felt the need for more and better ideas of possible organizational models for mainstreaming in the schools, the second weekend session was devoted to the Principals' Training Program, developed by the Education Service Center, Region XIII, Austin, Texas. To lend a reality principle to the exercise and to reach beyond ourselves, we decided to invite 18 principals and central office administrators from districts with whom we have cooperative relations. We believed, rightly as it turned out, that the presence of practicing administrators would enrich both the dialog and our understanding.

One final outgrowth of the year's work was the independent organization by members of the core faculty in mainstreaming of an interdepartmentally sponsored inservice teacher-training workshop that focused on psycho-motor development and language arts, in particular, reading. Members of the Departments of Early Childhood Education, Curriculum and Instruction, Special Education and School Psychology, and Health, Physical Education and Recreation organized and implemented a week-long workshop which was attended by 145 local teachers the week following the closing of school.

OUTCOMES

By the end of the first year of the Dean's Grant at the University of Cincinnati, several significant outcomes had occurred:

> Eleven faculty members had welded themselves and the dean into a core group with common experiences around a common set of problems.
>
> The College had formally committed itself to including appropriate responses to mainstreaming as a key additional element in its approach to meeting Ohio's new institutional standards for teacher education.
>
> Useful interactions with local school districts had been established in the context of the concern with mainstreaming through the provision of training experiences for a handful of administrators.
>
> The Psycho-Motor Learning/Language Arts workshop had been held.
>
> Eleven faculty members had developed first-hand experiences with a mainstream classroom and by attempting to make changes within the immediate frame of reference of their own professional responsibilities.

Dean's Grant, Year Two, 1976-77

THE PROPOSAL

Although we had certainly not completed anywhere near the full body of the work proposed during the first year, we had expended the bulk of our money in the June workshop and we had acquired substantial experience by the time we submitted our proposal for a second-year grant.

Based on our belief that we had been underfunded the first year and on the power of the experiences of the first group of core faculty, a plan was presented for the second year which would allow two more groups of faculty of about the same size and composition to go through similar experiences. The workshops would be held simultaneously the coming June. A graduate assistant to facilitate and coordinate activities was again requested. Two follow-up sessions with all the faculty who had had the workshop experience were proposed to outline strategies for devising the programmatic changes deemed necessary. The belief embodied in the proposal was that the number of faculty members thus exposed to mainstream settings — fully one-third of the total faculty — would constitute the critical mass the College needed to move forthrightly ahead. We asked for slightly more than $37,000.

THE REVISED PLAN

Late in February, we learned that we were tentatively slated to receive $20,000. Our appeal was not successful and, once again, we went about redesigning our approach.

Consultation with the core faculty suggested that although conducting one more workshop would be useful, it probably would not create a sufficient critical mass to move the College as a whole. Accordingly, we dropped the idea of additional experiential workshops and, instead, developed a design to use the experienced core faculty as facilitators of a series of seminars that all the faculty would be asked to attend. The seminars were conceived as consciousness-raising, awareness-creating experiences. Following the completion of the seminars, and in conjunction with activities aimed at moving the College further along toward compliance with Ohio's new institutional standards for teacher education, we proposed taking the core faculty members in mainstreaming and 31 other faculty members in the College off-campus for a week-long opportunity to consider mainstreaming and related issues.

All-College Seminars

As the Spring Quarter ended in 1976, the core faculty in mainstreaming began the process of conceptualizing the seminars to be held in the Fall. Early in September, we met and designed in detail four interdepartmental seminars. Class schedules of all the faculty were consulted and Friday afternoons from two to four were selected as the relatively best time.

Thus, every other Friday afternoon during the Fall, the faculty met to address in large and small groups different dimensions of the responsibility associated with mainstreaming. I opened the sessions with a carefully prepared presentation which, because of abysmal acoustics in the room we were able to secure, I transcribed and had delivered to each faculty member subsequently. In the first of nine small group sessions, faculty members were asked to explore the implications of brief case studies that had been designed to elicit various issues associated with mainstreaming and other implications of Public Law 94-142: stigmatization, due process, differential funding and reactions to it, segregation of children, separation of services, affective and attitudinal considerations, labeling, parental involvement, and the like. A special "textbook" composed of selected clippings and articles was created for the four seminars and made available to every faculty member. Additional materials were provided at each seminar.

The first seminar was stage setting. The second was designed to focus more sharply on issues and implications of the legislation. A representative of the Ohio Department of Education was invited to present the key provisions of Ohio's House Bill 455, the companion state legislation to Public Law 94-142. The smaller seminar groups, each facilitated by one of the core faculty in mainstreaming, convened separately to raise issues and implications. The afternoon concluded with a panel discussion among the head of the College Special Education Department, Fred Blake from Greenhills-Forest Park, and the director of the local Special Education Regional Resource Center. The third seminar addressed models for mainstreaming in the schools and the fourth focused on implications for teacher education. The formats were essentially the same.

The over-all seminar design then called for each department to hold a fifth seminar by itself at which the implications of what had been covered during the Fall could be explored in terms of that department's programs and missions.

Table 1

Distribution of Attitudes Following
Faculty Seminars on Mainstreaming and Public Law 94-142
$N=34$

	Not at all			A great deal
	0	1	2	3
I am more aware of the requirements of the legislation	1	5	19	9
I am motivated to do something about it with my peers	2	7	13	10
I feel that I understand the underlying issues	1	5	19	6
I see major practical implications for us	0	5	14	13
I need to know a lot more about school practices for mainstreaming	0	9	17	7
I feel I know enough now to help begin devise approaches for teacher education	3	14	10	5
I believe the College needs to respond to this challenge	0	4	17	13
I believe my department (specify ____________) needs to respond with considerable adjustment	1	14	11	4
I believe one of the implications of mainstreaming is that we must work closely with representatives of other departments	1	2	10	21

Considering the time of day and week at which the seminars were held, the average attendance of 65-70 faculty members out of 88 potentially available was quite high. Providing free coffee and cookies helped to balance out the occasional grumbles. A feedback form distributed two weeks after the last seminar generated 34 responses. Only one was blatantly hostile. The distribution of the responses is shown in Table 1.

Based on the tallied responses, the core faculty in mainstreaming concluded that the seminars had been reasonably effective, that there were some important differences in perception of the need for change and who should be responsible for it (when respondents shifted from concern for self, to program, to College), and that our assumptions of peer-involvement and cross-departmental attention were well placed.

A Crucial Resource Decision

Early in January a crucial decision was made. The calendar, which was established in connection with the developmental steps that were designed to bring the College into compliance with the new institutional standards for teacher education, called for the making of tentative decisions about the kinds and amount of resources to allocate to major areas of College need. The area of mainstreaming was one slated for consideration. The opportunity to make such decisions grew out of the commitment of the state to provide additional dollar resources to enable teacher-education programs throughout the state to move from the student/faculty ratios then existing to the newly approved standard of 14:1. Given the enrollment limitations currently existing in the College, we anticipated being able to add 9-10 faculty members on a continuing basis for the baccalaureate teacher-education programs.

The task force responsible for guiding the developmental work at Cincinnati met early in January and developed a set of recommendations to govern the allocation of the anticipated new faculty resources to meet the several demands of the redesign process. At that meeting, it was decided that the mainstreaming thrust of the professional education programs of the University would be accommodated by two of the anticipated 10 positions.

Off-Campus Workshop

Based on the feedback received from the intradepartmental seminars, and following conversations with selected faculty and on-campus process consultants, a design was prepared for a five-day, between quarter, off-campus workshop involving approximately 50 faculty members from the College and a few representatives from Arts and Sciences (consistent with our involvement of them as we implement the new institutional standards in Ohio). The design was reviewed by the Administrative Council, modified, and approved.

The first day of the workshop we received more detailed presentations by members of the Special Education and School Psychology faculty on selected aspects of the new legislation: diagnostic procedures, instructional methods, due process procedures, the development and use of individualized educational plans, nondiscriminatory testing, parent/professional interaction, affective processes among children, and sensitizing needs of teachers and faculty. Time was set aside for reading new materials that had been prepared and distributed to all participants. The participants were asked to write down what the materials, presentations, and the recently completed all-College seminars meant to them in terms of their own responsibilities. Departmental groups convened to begin consideration of individual reactions. There were opportunities for some cross-departmental visitation. Departments were asked to record and post their progress. All workshop members read all the postings and returned to their departmental groups to resume deliberations.

Candor demands my stating that I was not really able to grasp the central themes that came out of the off-campus workshop. Lots of ideas emerged, but so did many doubts, worries, and concerns. Would there be enough time? Where would needed instructional resources come from? Could the interdepartmental focus be developed? Would faculty members who devoted themselves almost totally to these concerns be recognized at the time of reappointment, promotion, and tenure?

OUTCOMES

By the end of the second year of the Dean's Grant Project activities, the outcomes seemed somewhat less precise than those at the end of Year One. The sense of vagueness was a result, in part, of the preemption that spring of our attention to mainstreaming by a University-wide fiscal crisis and, in part, of the character of the March workshop. Although that workshop had addressed satisfactorily a range of concerns, most of the participants had been left with as many doubts and concerns as they had building blocks on which to make further progress. Also, the activities of the second year had been somewhat more oriented toward cultivation than harvest; the dimensions of a crop are difficult to project when they are based solely on the amount and orderliness of the disc harrowing.

Important outcomes did occur, however. For example, it seems clear that considerable statewide interest was aroused in what we were attempting at the University of Cincinnati. That interest was made manifest in two ways: (a) I received a series of three invitations to address statewide teacher-education organizations on the topic of mainstreaming; and (b) I was asked to participate with four other leaders in teacher education in advising the Ohio Department of Education on the personnel development plan required by Public Law 94-142.

The programmatic evidence for the impact of Year Two came later. It took the spadework for the Year Four proposal, begun 3½ months after the conclusion of Year Two, to reveal the considerable range of results that were attributable to Year Two activities.

Dean's Grant, Year Three, 1977-78

THE PROPOSAL

Activity on the third year of our project overlapped the implementation of the second year, of course. Owing to the change in project design necessitated by the difference between requested and granted funds, it was not possible to undertake activities beginning promptly on June 1, as we had the previous year. The proposal submitted during October 1976 was based on emerging expectations and, perhaps, contributed to a solidification of those expectations in the form of the resource decision arrived at the following January.

In our third-year renewal proposal, the College asked for two faculty positions: one in Special Education and one in Curriculum and Instruction (responsible for the elementary and secondary education programs, in effect, so-called "regular" education). As a consequence of the additional personnel, four or five faculty members in each department would be offered joint appointments in other departments consistent with the purposes of mainstreaming. The appointments would have been what we came to call "load accommodated," that is, faculty members with joint appointments would have their normal loads reduced at least 20 per cent in order that they might participate in faculty meetings, curriculum development, evaluation, and team-teaching responsibilities. The new faculty members would take up the slack thus generated. Various other support costs were also requested, for example, secretarial support, a graduate assistant, and some additional funds to release individual faculty members on a per course basis. The total requested came to something over $45,000.

Early in May, months later than originally promised, we received word that our entire proposal was not approved. Again, we appealed the decision. Based on the outside reviews, the absence of an in-house staff review, and the difficulty of applying the current BEH evaluation format to projects aimed at the *reformation* of professional *regular* education programs, the initial decision was overturned. Ultimately, we were supported at the $30,000 level. Because of the lateness of the notification of our eventual funding, and because, once again, it was necessary to reconceptualize our approach, major delays in implementing the year's activities were encountered.

THE REVISED PLAN

Given the funding level and the time delays, a new approach was required. We decided to implement the following four-part plan:

1. Monies have been made available to the department heads to support individual faculty design and development efforts aimed at revamping existing course offerings consistent with the aims, purposes, and requirements of mainstreaming. Highest priority is to be accorded interdepartmental efforts.
2. Early in the Fall, the task force guiding our institutional redesign effort made the commitment that a special course should be required of all teacher-education students focused on the practical requirements and implications of mainstreaming *per se*. The core faculty in mainstreaming has assumed responsibility for this task.
3. The relation between pre-service and inservice program development needs will be further explored in an off-campus workshop involving the core faculty in mainstreaming and invited participants from surrounding school systems.

Alternative approaches

4. The possibility of holding an informational workshop with representatives of the state legislature, area colleges and universities, and school systems to discuss and demonstrate our progress toward fulfilling the obligations of Public Law 94-142 and Ohio's House Bill 455 is being explored.

This approach was approved in December 1977 by the Administrative Council and implementation is under way.

Dean's Grant, Year Four, 1978-79

Our renewal proposal for a fourth year is a repeat of that submitted the year before but with several essential differences. Because we will be further along, the proposal requires less money. Because we now have seen the size of the appropriations forthcoming from the State of Ohio in support of teacher-education redesign, we know that the salaries of the two individuals we would propose to hire can, in fact, be absorbed in the very near future under state funds. Finally, the firm commitment has been made to allocate two of the anticipated 10 new positions to the instructional requirements for mainstreaming.

In preparing to write the grant renewal request, a feedback form was again distributed to all the faculty in the College. Of the 90 faculty members who might reasonably have responded, 65 returned the forms, and 95 per cent or better indicated *and documented* changes they already had made in the instruction for which they are now responsible!

I was delighted and also surprised by that result because I had heard over the past 18 months a great deal of commentary on the need for additional resources, how difficult it was to do anything without appropriate practicum placement sites, and how time consuming interdepartmental coordination efforts were. From those kinds of legitimate worries I had incorrectly and, as it turned out, unwarrantedly concluded that not as much concrete was happening as I might have hoped (although I knew that the level of consciousness throughout the faculty had been very substantially raised as a result of the two years of work).

The kinds of changes wrought, the approaches that had been taken, the activities entered into in support of the purposes of Public Law 94-142 and mainstreaming, particularly, ranged from small to big, from simple additions to major reformulations of program and approach. Consider, the following sampling of the responses:

1. An expert on learning theory now regularly includes examples from the learning patterns of children with various handicapping conditions.
2. Several faculty have added observation requirements in the demonstration classrooms of the Cincinnati Center for Developmental Disorders (the education component of which is staffed by faculty holding academic rank in Education).

3. Counselor Education faculty now treat the development of individual educational plans and include examples from literature dealing with needs and requirements of students with various handicapping conditions.
4. Educational Administration faculty have added materials focusing on the due process and parent involvement requirements.
5. The administration course required of all teacher-education students now includes a unit on mainstreaming.
6. One faculty member has prepared and conducted a special workshop on the benefits of Individually Guided Education in serving the needs of special learners.
7. Another Educational Administration faculty member devoted his entire sabbatical leave to the study of mainstreaming and sites and programs where it is being carried out across the country.
8. Physical Education and Home Economics both have added units relevant to mainstreaming in their introductory courses.
9. The Early Childhood Education Department has committed itself to adding special courses on pre-school and the handicapped, and this year hired a faculty member trained in special education in the preschool.
10. The entire two-year, six-quarter freshman/sophomore preprofessional core, which focuses on human development and learning, social foundations, career orientation, and the development of interpersonal communication skills, was redesigned in the past year. One central guiding principle in the redesign was the set of concerns raised by the mainstreaming obligation. (The person in charge of the reconceptualization was one of the core faculty members in mainstreaming.)

Obviously, with 65 responses the preceding samples could be continued. The point is simply that significant and widespread changes have occurred already. More is yet to come.

Analysis of the Cincinnati Experience

THEMES

Several key themes emerge from our experience. The first among these, in time, certainly, if not necessarily in importance, has been the central involvement of the dean. Stimulating, initiating, facilitating, gate keeping, and occasionally directing, the dean has been a key element in the Cincinnati effort. I have kept it before the Administrative Council, encouraged the development of relations between departments, and allocated resources in a way to involve all elements of the College.

A second dominant theme has been the peer-teaching approach. We have expertise on our own faculty. We also have the capacity to learn. In the case of the enabling legislation, even the experts need to learn new things, too. Since we are all equals in that regard it has been possible to maintain a posture that enables us to help one another get to where we need to go. From the beginning, the project has been based on two important assumptions: (a) each of us needed to learn and (b) in our diversity, each of us had something to contribute to the learning of the others. It is an operational assumption which I think has been particularly fitting and appropriate to the guiding social and human aims behind Public Law 94-142.

A third theme grew out of the second. If we all had something to contribute as well as to acquire, then one of the routes to the achievement of the objectives that Public Law 94-142 demands of us is the idea that we need to mainstream ourselves. Departments and programs need to interface far more effectively and fruitfully than in the past. One of the most important outcomes of the development work conducted on behalf of mainstreaming has been the opportunity to learn about and profit from one another in the process of linking together.

A fourth theme has been the cultivation of synergy. There are not enough resources to accomplish even a portion of our objectives. The solution, therefore, lies in putting tasks and resources together. We did it by first seeing our approach to mainstreaming as related to program redesign recently completed, and then coming to see it as part and parcel of the generalized redesign task that lay ahead of us in meeting Ohio's new institutional standards for teacher-education programs.

A fifth theme might simply be labeled an understanding of the importance of a quid pro quo. The changes required of us to fulfill the teacher-education implications of Public Law 94-142 are great and often quite uncomfortable. They certainly entail extra effort and activity. That effort should be compensated for in some way, by providing time, money or experiences that, to the best of our ability, are intrinsically rewarding. The kind of fundamental change required by social legislation as profound as Public Law 94-142 is not produced by simply telling someone to change.

Finally, a last theme — patience. In re-reading our original proposal as we set out about the task, it is a little embarrassing to see how much we expected to accomplish in the first year. It looked to us then as if it were a curriculum-design project with some staff development. With the benefit of hindsight, it is now possible to see that far more is involved and that a great deal of patience and good humor is an essential ingredient in the process. If we had really pressed hard to accomplish what we thought we could, we probably would have generated considerable rancor and irritation that would have only been counterproductive. Similarly, if the unrelated annoyances of the budget hassles of Spring 1977 had allowed more pointed attention to the perception of not much concrete product from the March workshop, it is entirely likely that there would have been far less to show when the feedback was requested later in September.

PROBLEMS

The themes that have characterized the Dean's Grant Project at the University of Cincinnati can be supplemented by referring to several recurrent problems with which we have had to concern ourselves.

The foresight of BEH in anticipating the extent and depth of the changes that would be required in teacher education by the passage of Public Law 94-142 is so remarkable in the annals of federal policy development and application that it may be appropriate to call it both unique and unprecedented. None of the following observations should detract from the accomplishments which the inauguration of the Deans' Grants network represents.

Although it may sound a little like biting the hand that feeds us, it is important nevertheless, to share honestly some thoughts and suggestions that are based on our perception of the impact on us of the federal initiative in the Deans' Grants as both an enabling condition and something of an impediment. I hope that the first three rounds of reviewing and approving the Deans' Grants will result in improved procedures and program policies, but there is no specific evidence to point to, at least from our position in the field. Changing teacher-education institutions, for example, is not a process that can be evaluated according to the criteria and formats that are better suited to the analysis of special education training programs by people whose experience is in special education, as opposed to the institutional reform of teacher education. Yet, in the initial rounds of the Deans' Grants, that seems to have been what has happened.

Instead of operating on a competitive model, the program, perhaps, ought to shift in the direction of some form of entitlement basis that sooner or later will allow access and benefit to all teacher-education programs. Thought should be given to how big the grants ought to be for teacher-education programs of different sizes and responsibilities, what an institution can count on once it enters into a Dean's Grant relation, and for how long. There are many more institutions that need help; it is not too late to reshape the existing policies. However, concerns with criteria, review formats, orientation of personnel, scale of resources, and duration of award are the fine tuning of an initiative that has been properly and broadly conceived in the right direction.

A second kind of problem, but far less serious, is the line that has come to be drawn between special and regular educators. Part of it is jealousy over the additional support that, in recent years, many special educators have enjoyed. Part of it is envy over the commitment and conviction that regular educators perceive in their special education colleagues and that they may fail to perceive, or perceive as strongly, in themselves. Part of it is that many people in regular education, frankly, made a conscious choice to be there rather than elsewhere because of feelings of discomfort or anxiety in the presence of persons they perceive as different and strange. Now and suddenly, by act of Congress and the stroke of a President's pen, they fear themselves confronted by precisely those feelings which they, in part, sought to avoid. Such problems can be resolved, too, just as are the insufficiencies that may yet exist in administering the Deans' Grants themselves. These problems can be addressed by patience, human interaction, dialog, listening, and providing opportunities to build together.

As we in the College have observed ourselves and those around us at local, state, and federal levels, a third kind of problem emerges. Successful implementation of the purposes and processes of Public Law 94-142 requires the active attention of the leadership at the top of each and every institutional segment of public education. Unfortunately, in far too many instances, responsibility has been delegated to special educators and their staffs. No matter how able they are, none has sufficient span of control or authority or the right organizational location to reach all the other educators whose functions must also change. Leadership must come from the top: deans and department heads, district superintendents and principals, and state superintendents and division chiefs. The kind of training, substantive and attitudinal, that we have been trying to accomplish in teacher education with the Deans' Grants, also must be performed throughout the system. For example, have the USOE staff administering other elementary and secondary programs been trained in the aims and implications of Public Law 94-142? How many state superintendents have seen their job as acquainting, involving, and coordinating all their people — teacher certification, inservice, facilities planning, school finances, and the like — in the needs created by Public Law 94-142? How many local superintendents have involved themselves and their entire immediate staffs in the training and action requisite to the successful implementation of the act? Our experience in Ohio, by my reckoning, says nowhere near enough, although there are significant exceptions and, in recent weeks, some very major strides forward. Since leadership, or the lack of it, beyond colleges and departments of education helps to create the environment in which we operate, to the extent state and local response to Public Law 94-142 is not actively coordinated "at the center" makes our task much more difficult.

TWO EMERGING ISSUES

Two emerging issues, not quite on the same order as the preceding three identified problems also are beginning to present themselves. One is whether the requirements imposed by Public Law 94-142 do not once and for all end the notion that teachers can be initially prepared in a four-year program. Presuming we are unwilling to sacrifice the achievement of general education objectives, which many of us believe are the mandatory foundation on which later professional performance rests, how can the additional knowledge and the heightened sensitivity to diversity that is required of teachers be achieved within the traditional four-year period of time?

Second, as Public Law 94-142 is implemented in schools, we need to become alert to the secondary consequences on all children and the entire system. What is good for children of many kinds with learning difficulties brought about by handicapping conditions will sooner or later be asked for by the parents of *all* children. In this regard, given the broad social and individual aim of Public Law 94-142 for all of us to work with a larger diversity of children for their own and society's benefit, it is perhaps fitting to be reminded of Isaiah who told us centuries ago that in bringing together wolf and lamb, leopard and kid, calf, lion and fatling, it was a little child who shall lead.

The University of Kansas's Dean's Grant Project: A Case Study

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ABSTRACT. *The focus of the Dean's Grant Project described in this case study is upon faculty development and curriculum reform. Project goals and assumptions are presented accompanied by specific strategies for change.*

Planning the Project

The anticipated result of the Dean's Grant Project at the University of Kansas was improvement of the School of Education's teacher-education program. More specifically, the project was viewed as an opportunity to make significant changes in the School of Education curriculum so that regular classroom teachers could better meet the individual needs of *all* children — including children with mild handicapping conditions.

The decision to request federal funds and undertake the task of curricular reform was made by the dean only after thoughtful consultation with department chairpersons and several meetings with a substantial number of faculty members who were likely to be involved in the project. These sessions permitted open and candid discussion of the implications of the project for individual faculty members, each department, and the School of Education as a whole. The topics of discussion in the preplanning sessions were quite varied. However, in retrospect, these sessions undoubtedly increased faculty awareness of the problems associated with change in a university setting and resulted in the formation of a set of assumptions that guided later planning, writing, and implementation of the project.

THE UNIVERSITY ENVIRONMENT

At the outset of the project, the faculty recognized that significant curricular reform, particularly in a major university setting, is not only complex but, also, a predictably frustrating process. Faculty members, by training and professional responsibility, have developed identification with content areas that may not be complemented by proposed curricular changes. The pressure of curricular reform may be viewed by some faculty members as infringing on their academic autonomy. Also, externally imposed changes in curriculum may be viewed negatively because most faculty members feel that they are quite capable of personally evaluating and updating the content of the courses for which they are responsible. Furthermore, the structure of the university reward system does not directly recognize the results of the cooperative group efforts that are required for broad curricular reform. Finally, the *time* required for curricular reform seriously impinges on other faculty responsibilities, such as advisement, teaching, research, and committee work. Some of these responsibilities may be perceived by faculty members as higher in priority than the activities necessary for successful curricular reform. Awareness of the preceding issues in the change process by the faculty of the School of Education, University of Kansas, implied the recognition that, in reality, change is a "people process" and, consequently, faculty involvement was critical to the success of the proposed Dean's Grant Project.

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ASSUMPTIONS

The second result of the preplanning sessions was the emergence of a set of assumptions that guided the development of the proposal and, later, the implementation of project activities. These assumptions were not formally stated during the preplanning sessions; rather, they emerged as important project elements as faculty members expressed and resolved their concerns.

1. Continued involvement of the dean was essential to the success of the project. The dean's commitment served the project in various ways.

The dean's initial interest in the project and his systematic interactions with faculty members to determine their potential commitments to and concern with the project set the stage for his assuming an active role as project director. His visible commitment alerted faculty members to the potential significance of the project for accomplishing broad changes in the School of Education, and, also, provided a model for the energetic support necessary for project success. Thus, his initial participation attracted the faculty participation needed throughout the project.

The dean's leadership in the project also helped to lessen concern with the lack of a reward structure recognizing faculty time and effort for such an innovation. As previously noted, the university reward structure demands visible quality in scholarship and teaching. Although the dean is not directly responsible for promotion and tenure decisions, his *recognition* of the intense demands on faculty members for the professional and curriculum developments associated with such an innovation relieved, to some extent, faculty concern over this issue. Further, the dean's awareness of these problems led to his exploration of alternative strategies for rewarding faculty effort: for example, providing relief from some committee activities, hiring faculty during the summer or between semesters to carry out certain critical project efforts, and providing released time in the form of off-campus working retreats. The dean's interest in the project also was conveyed to faculty members through informal recognition of individual work, letters of thanks, and personal interactions. Finally, the dean's broad perspective of the School of Education was invaluable to the success of the project. His awareness of schoolwide goals, departmental activities, power sources, and areas of strengths and weaknesses enabled him to maintain the focus of the project without losing sight of the many other pressures on faculty members.

2. New curricular content relative to mainstreaming should be integrated as a part of existing regular education coursework. For example, students enrolled in a history of education course would learn about the history of education for handicapped as well as nonhandicapped children. Similarly, courses related to teaching methods for social studies or reading would include content pertaining to methods of teaching mildly handicapped students. Although an alternative strategy might have been to require additional undergraduate courses that addressed the problems of teaching mildly handicapped children in regular classrooms, it was felt that the spirit of the Dean's Grant Project could best be met through an integrated approach that would end the practice of providing separate courses and content dealing with exceptionality. Thus, project activities were directed toward extending the content of regular education courses to include instructional strategies for meeting the full continuum of individual differences among children. In consequence, new content had to be identified and developed by regular education faculty for delivery in most undergraduate regular education courses.

3. The project must be designed to elicit the involvement of a maximum number of faculty members. Indeed, initial commitment by a substantial proportion of faculty members was seen as a prerequisite to undertaking the project, and the continued support of a broader group of faculty members was regarded as essential to the full realization of lasting change in the School of Education.

In order to achieve the goal of lasting and integrated change, it was critical for faculty members from all departments to participate in planning the project so that it represented their conceptions of a workable innovation effort. As new curricular changes were integrated in regular education courses, it was necessary for regular education faculty to plan, develop, and implement the content of this new curriculum.

It was also assumed that a high degree of faculty involvement could, potentially, minimize the effects of several anticipated problems. (a) The problem of academic autonomy would be reduced by the fact that each faculty member participated in determining what changes were to occur and how such changes would be accomplished. If, on the other hand, faculty members had been asked to accommodate externally imposed changes in their course content, they would experience no ownership of or control over the change process. (b) Wide involvement of regular education faculty in planning and creating change would diminish future problems of project management and School of Education governance that would inevitably arise when the new curriculum was to be implemented. (c) The direct participation of faculty in the change process would lead to necessary faculty development. As the faculty members engaged in planning and creating the new curriculum, they would, by necessity, refine and expand their knowledge of teaching mildly handicapped children.

4. The role of special education faculty in the Dean's Grant Project would be de-emphasized. This assumption was consistent with the idea that the new curricular content should be developed by regular education faculty and integrated throughout the regular education curriculum. Special education faculty members were called upon to provide materials, contribute individual expertise, and team teach new content during the initial stages of implementation. They did not, however, make final decisions regarding curricular content or serve in leadership roles on the various committees associated with the project. Thus, the resource role of the special education faculty was supportive of the over-all efforts of the regular education faculty.

Project Management

Consistent with the preceding assumptions, the structure of the project management was designed to incorporate the views of faculty members representing all departments, particularly those departments involved in the undergraduate training of regular classroom teachers. Thus, an eight-member Steering Committee, composed primarily of undergraduate teacher-education faculty members was appointed by the dean. The Steering Committee functions as an advisory group to the dean who chairs the committee and serves as project director. This committee provides direction and management impetus to the project by planning specific activities to meet the project objectives. Smaller task-force groups are formed as needed to develop and refine project strategies at the direction of the dean and the Steering Committee. Finally, periodic updates on project developments are sent to all faculty members, and all major project decisions are submitted to the total faculty for approval. This three-part management structure provides for total faculty knowledge and the communication of project developments while sheltering faculty members from the incumbrances of management details. Further, the structure creates a continuous feedback cycle between faculty and Steering Committee members to provide formative evaluation data for the assessment of faculty needs and problems related to the project and for the development of possible management strategies for addressing these needs.

Project Goals

The University of Kansas's Dean's Grant Project has addressed two major goals: (a) faculty awareness and development, and (b) development of a new curriculum to prepare teachers to serve mildly handicapped children in the least restrictive environment. In addition, an underlying but critical thrust of the project has been to establish a structure for continuous curriculum and faculty development that will be responsive to evolving pre-service teacher needs and will persist beyond the Dean's Grant Project funding. The original assumptions for the project are reflected in project strategies.

The goal of curriculum development was implicit in the rationale for funding the Deans' Grants Projects. Legislation had given impetus to the growing awareness among educators that handicapped children must be taught in the least restrictive environment appropriate to their educational needs. The Dean's Grant Project at the University of Kansas addressed the goal of developing a new curriculum to prepare regular education majors to serve mildly handicapped children in regular classrooms through a series of strategies. (a) Teacher competencies essential to serving children in the least restrictive environment were identified. (b) Instructional modules were developed on the basis of these competencies. (c) The new content, in the form of instructional modules, was field tested then fully integrated into the regular undergraduate teacher-training program. In accord with assumptions that the new least restrictive environment curriculum should be fully integrated with regular education coursework, regular education faculty planned, developed, and implemented the new curriculum.

The goal of faculty development evolved in response to faculty needs and interests growing out of the curricular innovations. Although at the outset of the project many faculty members gave verbal support to project goals, actual change in their courses was a distant commitment. Also, the ideals of individualized instruction and public education appropriate to the needs of all children had long been espoused by regular as well as special education faculty, but formalization of these ideals by way of the Dean's Grant Project raised questions of territoriality between regular and special educators. Thus, faculty development activities had to be designed to maximize contributions of individual faculty members and, at the same time, to diminish the barriers that individual expertise and autonomous functioning may pose to the high degree of cooperative planning essential to curricular innovation.

Thus, the goal of faculty development has been addressed at two levels: (a) Faculty members have been involved in developing and refining all aspects of the new curriculum. (b) A series of informational conferences and distribution of relevant materials have been conducted and a systematic model of faculty inservice has been developed.

The two goals of faculty and curriculum development have been closely interrelated throughout all three project years. The interface between these two major project goals is evidenced in the following description of specific activities undertaken during each year of the project:

Year I

First-year activities were aimed at (a) increasing faculty awareness of the need for preparing pre-service teachers to serve mildly handicapped children in regular classes, and (b) identifying teacher competencies to address this need. Even though the latter activity was the major first-year thrust, a certain amount of faculty awareness was necessary before competency identification could be approached in an expeditious manner. Approximately one-third of the faculty members had expressed initial support for the Dean's Grant Project concept, but they, in addition to others, were not fully aware of the implications of the Dean's Grant Project for change in the existing undergraduate program, or of the form or content of the new curriculum to address these needs. Thus, during the first project year, several specific faculty awareness activities were a foundation for obtaining faculty participation in identifying and developing the new content.

FACULTY AWARENESS

Initial awareness activities focused on the rationale for Deans' Grants Projects, implications of the projects for higher education, and the response required of the School of Education to prepare teachers who would serve mildly handicapped children in regular classes. In addition, some exposure was provided to special education content that could be adapted to the needs of pre-service teachers.

Informational conference: During October 1975 all faculty were invited to participate in an afternoon-evening conference. The focus of this conference was to gain faculty awareness of the Dean's Grant Project goals. The conference also provided a forum for the exchange of ideas and concerns about the concept of least restrictive environment education in general and the University of Kansas's Dean's Grant Project in particular. Invitations were extended to all faculty members, local school districts, and Kansas State Department of Education personnel. The program included an overview of historical and litigative trends which have led to least restrictive environment education and implications of the concept for colleges of education. Between presentations, conference participants joined small interdepartmental discussion groups in which recommendations for future Dean's Grant Project activities were solicited. Thus, this conference provided the opportunity for faculty participation in initial stages of the project and gave faculty members the chance to identify inservice needs. One specific recommendation was that a second conference be held to determine essential new content for the undergraduate teacher-education program and to consider strategies for developing the new content.

Collection of materials: Throughout the first year, materials relevant to serving handicapped children in regular classes were collected and placed on reserve in the School of Education curriculum laboratory for faculty use. Informative materials related to litigation, legislation, and new models for serving handicapped children were provided. Bibliographies of mainstreaming-related materials were then distributed to all faculty members to encourage use of these materials.

Periodic updates: Throughout the first project year, the dean sent letters and memos to the faculty reporting on the progress of the project and soliciting reactions to proposed new teacher competencies, plans for developing new content, and the like. Reports on the awareness conference and the later working retreat were distributed to all faculty members so that nonparticipants also were made aware of all project activities.

CURRICULUM DEVELOPMENT

The identification of new content to prepare teacher trainees to serve handicapped children in regular classrooms was of critical importance to the project. The new content not only had to address the needs of preservice teachers but, also, be acceptable to all faculty who would be involved in developing and integrating these changes into their courses. Thus, all faculty members were involved at various times during the first project year in reviewing and refining competencies that would provide the basis for the new curriculum.

Competency recommendations by special education faculty: During Fall 1975 the Steering Committee appointed a task force of special education faculty members to develop recommendations for competencies which might serve as the basis for the new curriculum. The resulting list addressed six general areas of teacher competencies with specific subcompetencies defined under each. The six general competency areas were as follows:

1. Knowledge of normal and differing learning patterns of students.
2. Knowledge and application of classroom assessment procedures appropriate to exceptional children.
3. Knowledge of curricular choices appropriate for exceptional children.
4. Knowledge of techniques for planning, delivery, and management of instruction for exceptional children.
5. Human relations and organzational skills essential to serving exceptional children and participation on IEP teams.
6. Knowledge of societal influences and issues related to exceptionality.

Alternative approaches

Faculty retreat: In keeping with earlier faculty recommendations for a second conference, a two-day, off-campus working retreat was held in February 1976. The 30 faculty representatives who attended this conference were asked to review the proposed list of teacher competencies. Based on the reviews, competencies were deleted, revised, or added as necessary to compile a refined and comprehensive list. Retreat participants also proposed time schedules and procedures for developing the new curriculum.

Total faculty review of competencies: The list of refined competencies resulting from the February conference as then distributed to *all* School of Education faculty members for further revision and approval. Faculty members were also asked to designate departments which should have primary responsibility for developing content for each competency and to indicate those competencies which they would be personally interested in writing or reviewing.

DISCUSSION

The process of asking a small task force to recommend competencies, making a representative faculty group responsible for refining the competencies, and, finally, submitting the competency list to all faculty members for revision and approval, illustrates the close interrelation between faculty development and curriculum development that has characterized all phases of the University of Kansas's Dean's Grant Project. The two-day retreat served both goals of faculty awareness and curriculum development in that the 30 faculty participants not only revised and refined the competency list but, also, spent two days becoming familiar with the competencies, modifying the competencies to meet their personal conceptions of mainstreaming, and refining their ideas about mainstreaming through exchange with colleagues from all departments. Faculty members also participated in planning how the new content would be incorporated into coursework. Thus, each participant was engaged in two days of intensive involvement with the project and was asked to make a personal investment in the concepts reflected in the competency list. The process of submitting the revised competencies to all faculty members for further refinement and approval, although time consuming, broadened the basis of faculty support for the proposed curricular changes represented by the competencies.

Year II

The second project year was primarily devoted to development of new curricular content to address the least restrictive environment competencies. Faculty development was addressed by providing support and direction to the faculty members involved in writing and reviewing the new curriculum. Again, the structure for curriculum development was the use of small task-force groups to write and review the new curricular changes and the involvement of a larger number of faculty participants in a second working retreat for final review of the modules and field-test recommendations.

FACULTY AWARENESS

Although no formal faculty awareness activities were planned during the second project year, development of the new curriculum served as a vehicle for faculty growth. Faculty members involved in the actual writing of instructional modules for each competency had opportunities for informal exchanges of ideas with colleagues from other departments who composed task-force writing groups. Writers were also, of necessity, exposed to materials and media essential for the development of content to address the competencies. Further, project staff and Steering Committee members interacted informally with the writers to provide support and feedback regarding the writing process and content. Similarly, faculty members who had volunteered to review the instructional modules became actively involved with the new content. Finally, the formal review process, which occurred at a second faculty retreat, provided for the close scrutiny of the new content. It also elicited more explicit faculty concerns about the new content and the need for formal faculty inservice activities than had been previously voiced.

CURRICULUM DEVELOPMENT

The development of instructional modules to address the competencies identified during Year I was the first step toward the actual implementation of the project's goals. In order to translate the competency statements into new curricular content, faculty had to become familiar with the intent of the competency statements, acquire knowledge relating to the instruction of mildly handicapped students, and synthesize this knowledge into new instructional content to enable pre-service teachers to acquire the specified competencies. Thus, this phase of the project required faculty members, for the first time, to be involved in not only planning or making critiques of proposed curricular changes but, also, actually implementing those changes.

Identification of writers and reviewers: Based on the list of faculty volunteers obtained during competency review, writing groups and individual reviewers were identified to develop content associated with each competency. The 25 faculty members who volunteered to write the modules and the 29 who volunteered to review the modules represented all departments in the School of Education. Although substantially fewer special education than regular education faculty members were identified as writers, the Steering Committee assigned one special education faculty member to each writing group when possible.

Appointment of faculty for writing tasks: Four faculty members who had expressed high interest were appointed on a part-time basis to the project to develop priority competencies and to interact with other writers in the six general competency areas.

Coordination of writing task: Department chairpersons and Steering Committee members participated in coordinating the module development and review process. Shortly after the modules had been assigned to writing teams, a two-hour workshop for writers was held to discuss module format. The project coordinator also met with each writing team to give Steering Committee guidelines for module content, recommendations for resource materials, and suggestions for the scope of the modules.

Recommendations for field-test placement: On completion of the modules, the Steering Committee made initial recommendations for field-test placement in various regular education courses. These recommendations, together with abstracts of all the modules, were submitted to department chairpersons for review, modification, and approval. Based on department chairpersons' agreement with recommendations for module placement, individual faculty members were asked if they would include the designated modules in their courses.

Working retreat for module placement: Further faculty suggestions were solicited at a second major off-campus working conference during November 1976. The conference included module writers, reviewers, and faculty members who had agreed to deliver module content. Thus, faculty members who would eventually field test the modules were provided an opportunity to become familiar with the new content by interacting with writers as well as to recommend scheduling of field testing, propose a sequence for delivery of the modules, and recommend changes in the assignment of the modules to courses. In reviewing module content, conference participants identified a major problem: The series of modules represented a somewhat fragmented body of content which posed difficulties for the ultimate goal of sequential integration of a unified curriculum to prepare teachers to provide least restrictive environment services. To address this problem, participants recommended that the Steering Committee appoint a task force to review the new content to identify redundancies and missing content prior to field testing.

Appointment of task force for revision: Based on the retreat recommendation, the Steering Committee identified a five-member interdepartmental task force which was appointed on a part-time basis to assist project staff during early Spring 1977. The task force accomplished its mission to identify overlapping and missing content and to propose major revisions of the modules during Spring 1977. In addition, the task force identified several major programmatic issues involved in attempting to integrate Dean's Grant Project content into existing courses. First, through the intensive review and revision of the modules, the group became aware that introduction of this large body of new content posed serious time strains for courses in which even traditional content must be ranked in priority to accommodate the 16-week time parameter of most courses. Second, the group became aware that the sequential delivery of mainstreaming content would be difficult if not impossible in view of the fact that the School of Education does not currently require undergraduates to follow a specific sequence in completing coursework.

DISCUSSION

Initially, the curriculum development process had been conceptualized as involving small writing groups who would share expertise in developing individual modules. During the early stages of module development, the writing tasks were undertaken as group efforts and some cooperative planning was done. Writing teams convened to ask for further clarification of the task and more direction relative to the scope and aims of module content. A general workshop for writers was held to provide recommendations for module format and content, but not all writers attended and concerns about the task persisted. Gradually, the development of the modules evolved into an individual rather than a group-writing activity. In general, this period of the project was marked by confusion and, to some extent, an erosion of group efforts. In retrospect, this outcome might have been predicted and is indicative of the difficulty of coordinating such a developmental effort.

Problems in the development and review process, perhaps, also can be accounted for by the fact that the Steering Committee did not provide adequate structure for writers, and faculty members were asked, during this stage of the project, to move from ideas to actual implementation. Conceptualization of an idea for innovation is often challenging and stimulating; however, the same enthusiasm is difficult to maintain through implementation. Despite this period of dissatisfaction and confusion, the 61 modules were completed by mid-October 1976.

Year III

The third year of the project can best be characterized as the "initial implementation" phase. For the first time, instructional modules designed to prepare teachers to serve children in least restrictive environments were delivered on a trial basis in regular teacher-education courses. The field test was conducted to allow two populations to evaluate the new curriculum: the students receiving the new content and the faculty members delivering it. Consequently, the field test evaluated problems with the use of the modules (format, resources preparation and delivery time, and materials) and applicability of the module to existing content. Curriculum and faculty development also continued during the third year. Often, these developmental activities occurred simultaneously, with curriculum development and implementation activities serving as a basis for faculty development. However, formal faculty development was independent of curriculum development. Before the field test could be conducted, several curriculum development activities were initiated in response to the concerns raised by the curriculum revision task force. Problems of redundant and missing content were addressed by the elimination or revision of existing modules and the creation of new modules.

Thus, some development of new content occurred even during the third project year; however, the major emphasis of the third year was on implementation.

FACULTY DEVELOPMENT

Faculty development occurred on two levels. Informally, faculty development resulted from direct involvement in the preparation of the modules for field testing and the actual delivery of the instructional modules. On a formal level, faculty representatives participated in a regional conference and developed a model for faculty inservice.

Advocacy role assumed by curriculum revision task force members: The five-member task force represented four of the eight departments within the School of Education. As a result of their role in carefully examining the curriculum and recommending changes, these faculty members became highly involved in over-all project activities and have acted since as strong advocates for project goals within their respective departments. They also have served to clarify project goals for their colleagues and to act as within-department sources of information regarding the project.

Module field test: The implementation of the least restrictive environment curriculum itself has provided opportunities for faculty development. Module delivery was carried out under three separate formats at the option of the course instructor. Modules could be (a) delivered by the instructor without assistance; (b) team taught by the course instructor and module writer; or (c) delivered by the module writer with the course instructor in attendance. All three delivery formats provided for varying degrees of instructor interaction with the module content and module writers. The team-teaching option was considered most desirable in terms of the faculty development since it provided for maximum degrees of instructor interaction with the least restrictive environment content and other faculty members.

Formal faculty development: National Support Systems Project Conference: National Support Systems Project activities provided a second avenue for faculty development during the third project year. The National Support Systems Project sponsored a regional conference in October 1977. The theme of this conference, "Implications of Individualized Educational Plans for Content Areas," was particularly timely for University of Kansas faculty members involved in field testing.

Formal faculty development: Inservice: At the previously mentioned working retreat held in November 1976, the faculty requested a formal plan for faculty inservice. Based on that request, a formal faculty inservice plan was developed by two Steering Committee members. The inservice plan included three components: (a) exposure to handicapped children in a variety of educational settings; (b) specific information about educational implications of handicapping conditions; and (c) interaction with colleagues who have expertise in teaching children with specific handicaps. Anticipated outcomes of the inservice included changes in attitudes toward and knowledge of educational implications of handicapping conditions.

Recognizing the time demands on faculty, the inservice plan was designed to maximize convenience by permitting faculty members to choose alternative modes of participation. Field trips to a continuum of educational facilities for handicapped children were arranged; "brown-bag" discussions were scheduled with special education faculty to provide for the exchange of ideas regarding educational implications of specific handicapping conditions; and collated sets of readings highlighting educational considerations and classroom teacher responsibilities related to serving mildly handicapped students in regular classes were distributed. As an alternative to direct exposure to handicapped students and direct interactions with colleagues, field trips and "brown-bag" discusssions were videotaped for faculty members who could not attend. Readings were also made available in the form of cassette recordings. Thus, the inservice format was designed to maximize options for faculty members to participate at their convenience.

CURRICULUM DEVELOPMENT

Curriculum development activities were conducted before, during, and after the field test of instructional modules. Content was added and deleted before the start of the field test on the basis of recommendations from the curriculum revision task force. Module activities and materials were added or deleted as necessary during field testing with the approval of the module writers and the Steering Committee. After field testing, module placement and the content of modules were revised on the basis of field-test evaluation results.

Module revisions prior to field testing: Based on recommendations of the curriculum revision task force, revisions were made in the existing instructional modules. All modules were revised as necessary to meet the time limitations of courses. Also, all modules were written for instructor rather than student use. Where necessary, the modules were revised to be applicable to all methodology courses rather than specific to particular course content. The resulting series of modules was felt to represent a sequential body of least restrictive environment curriculum.

Module revisions during field testing: Further revisions in the modules were made during field testing with the approval of the writers and the Steering Committee. Student readings, filmstrips, and the like were added or deleted when more appropriate materials were identified. Often, recommendations for these changes were made by field-test faculty members.

Revisions in course placement of modules: Based on student and instructor evaluations, module placement was revised to accommodate needs for prerequisite content and needs for application of specific modules to more than one course. Student evaluations were particularly useful in making placement decisions. Also, student exposure to the modules during field testing resulted in discussions of least restrictive environment education in other courses which were not field-test sites.

Alternative approaches

Revisions in content of modules after field testing: On the basis of student and instructor evaluations, content of the modules was revised as necessary. After final revisions, the modules were produced in the form of instructional packages complete with media and materials necessary for delivery. Student readings and activities were also packaged for convenient distribution and use. As the modules were produced in final form, the Steering Committee established procedures for their continued review and evaluation so that new content could be added as new teacher needs were identified.

DISCUSSION

Actual implementation of the new content posed, perhaps, the greatest challenge for flexible, responsive project management and faculty development. Implementation also provided the best criteria, to date, for evaluating progress toward the two project goals of curriculum and faculty development.

At the outset of implementation, faculty members participating in field testing were contacted and given general guidelines for the goals of field testing, evalution instruments to be used in assessing student and instructor reaction to the modules, and the names of resource persons who might assist in preparing for teaching the modules.

As in the previously described curriculum development phase, faculty members who were to field test the modules expressed many concerns on how to deliver module content and dissatisfaction with field-test placement modules. These issues were addressed by making changes in the placement of several modules in courses and establishing a team-teaching structure between field-test faculty and module writers for initial delivery of the modules.

The most difficult and surprising issue raised during this period was that of dissatisfaction with the new content and competencies to be introduced. Faculty members expressed the view that the competencies and related modules were not unique to the preparation of teachers to serve mildly handicapped children and duplicated content related to individualized instruction already being taught in regular education courses. This development was particularly surprising in view of the broad faculty contributions and approval of the competencies which had previously been given. A second surprising development was that regular education faculty members began to voice the feeling that special education faculty members were trying to dictate regular education content and were advocating the wholesale return of children with handicaps of all degrees of severity to regular education. As emphasized previously, special education faculty members had had considerably less active involvement than regular education faculty members with all phases of the project. Further, these concerns were raised despite the fact that regular education faculty members from all departments had developed most of the new content with little assistance other than the occasional provision of materials and resources from special education faculty.

Faculty development activities to address these concerns included frequent personal interactions of project personnel with individual faculty members responsible for field testing the modules. The interactions included reviewing the process by which competencies were developed, highlighting the change and expansion of emphasis represented by modules to be delivered in methods courses, and pointing out the actual degree of special education involvement in planning and developing the new curriculum. In many instances, it was necessary for several persons, including the dean and key project personnel, to review the history of the project with individual faculty members.

The salient message in these faculty concerns seemed to be one of surprise at being confronted with the actuality of innovation implicit in the implementation of the Dean's Grant Project goals. At a more personal level, faculty members were confronted with the actuality of changing their courses to introduce new content and being prepared to deliver the new content. As with the module development phase, the translation of plans into action elicited fears, direct opposition, and attempts to blame some external group, in this case, special education, for imposing the burden.

As noted previously, faculty development and management strategies in response to these issues were critical. Continuous support of faculty members involved in field testing, in the form of providing materials, discussing module content, team teaching, or guest presentations of the modules, proved to be essential to eliminating the barriers to implementation. While many impediments to full implementation persisted, faculty members who actually participated in field testing by teaching the new content themselves or team teaching became quite supportive of project efforts. For example, some field-test faculty members created new materials to supplement the modules, circulated articles relating Public Law 94-142 to their content areas among project personnel, and requested additional information and guest presentations to provide overviews of Public Law 94-142 to students who were not exposed to all aspects of the new curriculum. One faculty member asked to deliver an additional module related to the content of her course, although the module had been placed in a different course for field testing. Although the difficulties of implementing the new curriculum were by no means fully resolved, responses of faculty members who included the new content in their courses were very encouraging. Therefore, it appeared that hands-on, direct involvement with the new material diminished concerns and, in fact, created enthusiasm for the potential benefits of applying teaching strategies designed for mildly handicapped students to all students.

Project Outcomes

The University of Kansas's Dean's Grant Project goal of developing a new curriculum essential to the preparation of classroom teachers to serve handicapped children in least restrictive environments has been met to the extent that a body of content in the form of 61 modules has been created and implemented on a trial basis. This development process, of course, must be continuous.

The goal of faculty development, likewise, has been met in part but must continue to evolve in conjunction with the need for new curricular change and full implementation of the existing least restrictive environment curriculum. Faculty development efforts also must continue to evolve in response to increased faculty knowledge of and interest in implications of Public Law 94-142 for all educators and in response to the new issues of concern and resistance that will inevitably arise.

The underlying project thrust, to establish a structure for continuous curriculum and faculty development, has been met to the extent that the faculty members involved in the implementation of project goals have broadened the basis of Dean's Grant Project advocacy. Also, the Dean's Grant Project has evoked recognition of general School of Education problems: the need for a sequential undergraduate training program and the potential need for expanding the professional education sequence to accommodate essential new curricular content, such as least restrictive environment education content, career education, and the like. Recognition of these problems suggests that the project has had a broader impact on the School of Education programs than just inclusion of new content in response to the least restrictive environment thrust. Indeed, the resolution of these issues is critical to the full and successful implementation of the Dean's Grant Project goals. Creative response to these issues also may assist in provoking continued response to and interest in the program development associated with the Dean's Grant Project goals.

Finally, the success of the existing Dean's Grant Project structure in coping with potential barriers to various phases of project implementation suggests that the project structure may have the flexibility and responsiveness critical to withstanding the strains of continuous innovation.

A Look at the Future

In May 1977, Dean Dale P. Scannell, Principal Investigator and Project Director of the University of Kansas's Dean's Grant Project, joined a group of deans who also are involved in third-year project activities in drafting a letter to the Bureau of Education for the Handicapped requesting consideration of a new cycle of funding for Deans' Grants Projects. When the BEH request for proposals was issued, Dean Scannell again determined that response to the request should be made only on the basis of broad faculty support. Faculty members, indeed, expressed interest in such new funding. The resulting proposal represents an extension of the two major goals — faculty development and curriculum development — that directed project activities during the first three years. Proposed plans to meet the goal of faculty development include increased faculty interactions with local education agencies providing least restrictive environment services and concomitant field validation of the least restrictive environment modules. Continued exploration of team teaching between regular and special educators also poses exciting faculty development potential for both groups. In keeping with the spirit of integrating special and regular education content, faculty might more fully integrate areas of individual expertise into new roles as general teacher trainers, rather than as Curriculum and Instruction or Special Education department members. Plans to meet the goal of curriculum development include continued revisions in and updating of the least restrictive environment modules, validation of the modules by field practitioners, and integration of the modules into existing regular education courses. The integration aspect of curriculum development is particularly critical to over-all project success. Although existing modules currently represent additional and somewhat isolated content in regular education courses, the philosophical spirit of the current project — to integrate least restrictive environment content into the regular education structure — will be met only if the new curriculum is so closely interwoven with the traditional curriculum that regular education addresses the need to accommodate individual differences as a matter of course.

The third goal for new Dean's Grant Project activities will include expansion of the least restrictive environment thrust to graduate program areas. In preparing undergraduate teacher trainees to serve handicapped children in regular class settings, faculty members participating in the Dean's Grant Project have recognized that the roles of administrators, school psychologists, counselors, and curriculum specialists are critical to the full provision of free and appropriate public education to all handicapped children.

Dean's Grant Project funding has been and is critical to full realization of the innovations requisite for preparing educators to provide free and appropriate public education to all handicapped children. However, the University of Kansas's Dean's Grant Project outcomes would suggest that the success of such pervasive innovations as are represented by the Deans' Grants Projects is dependent on the initial interest of regular education faculty, the high commitment of a small but representative faculty group, a structure for the formal and informal exchange of information and involvement of all faculty, and, most important, energetic leadership, preferably by a highly committed dean.

Anatomy of a Dean's Grant Project

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ABSTRACT. *The focus of the Dean's Grant Project described in this case study is upon the integration of supplemental activities on mainstreaming into the teacher-training curriculum. Collaborative efforts with public schools and other state agencies as well as research efforts relative to mainstreaming are presented.*

The Dean's Grant Project on Mainstreaming at the University of Michigan is now in its third year. During this time, we have learned much, made many mistakes, and made progress in the area of preparing regular education personnel to work with handicapped students in regular classes. This paper discusses some of our activities and what we have learned as a result of them. We have accurately reported both our achievements and errors in the hope that other teacher educators will avoid the latter and pursue a less arduous path to the former.

The organization of the School of Education, University of Michigan, and the multiple training options for elementary and secondary students provide the context for our project. The School of Education offers training at the B.A., M.A., and post-M.A. degree levels in 11 distinct programs organized into the following four administrative divisions:

I. Division of Teacher Education
  Program D — Curriculum and Instruction
  Program F — Physical Education
II. Division of Behavioral and Social Foundations
  Program A — Social Foundations
  Program C — Educational Psychology
III. Division of Educational Specialists
  Program B — Administration and Supervision

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Alternative approaches

Program J — Guidance and Counseling
Program N — Special Education

IV. Division of Higher, Occupational, and Continuing Education

Program E — Occupational Education
Program G — Higher Education
Program H — Adult and Continuing Education
Program M — Education and Community Development

In addition to the dean and his administrative staff, the affairs of the school are the responsibility of the Executive Committee. This committee is under the direction of the governing faculty and has the duty of investigating and formulating educational and institutional policies for consideration by the faculty, and it acts for the faculty in matters of budgets, promotions, and appointments.

Undergraduate students who seek teacher certification spend their first two years in the College of Literature, Science, and the Arts. They then apply for admission to the School of Education for their junior and senior years. Once accepted, they apply for admission to one of the teacher-education programs.

Elementary education majors may apply to one of eight programs:

Program 1: Special Education
Program 2: Modified Field-Based Programs
Program 3: Field-Based Elementary
Program 4: Field-Based Early Childhood
Program 5: Field-Based Urban Elementary
Program 6: Teaching as a Psychological Process
Program 7: Field-Based Middle School Emphasis
Program 8: Field-Based Bilingual Education

Each program has from one to three subprograms. Each is the responsibility of a faculty member.

Students gain entry to a secondary teacher-education program through the same outlined procedures. Majors and minors are available in 38 subject areas. Twenty credit hours of professional field-based training are required in addition to the major and minor coursework.

All programs are small and, to a great degree, autonomous. All programs are field based. The rationale for multiple training options is that it provides greater relevance of training, greater individual attention from responsible faculty, and greater choices for students who select their own programs. Emphasis is on quality, not quantity. A balance of cooperation and competition among programs encourages continuing modifications and adjustments.

Planning for the Dean's Grant Project

Influencing the personnel-preparation process in a context as complex and diffuse as the School of Education at the University of Michigan presented several problems. The possible solution of having the dean mandate training in mainstreaming for everyone was not considered because the process of real change is rarely accomplished in this fashion. The faculty and the Executive Committee have a strong voice in school affairs and individual faculty members tend to be sensitive to the ebb and flow within the system. The faculty is relatively small but there is a great deal of activity within the system and between the school and outside organizations. Approaches to change are usually in the form of controlled, cooperatively balanced task forces. Externally funded projects and the activities of some faculty members often are related to many programs and projects.

ESTABLISHING A STEERING COMMITTEE

There are at least two initial procedures in starting a new project in this context, even when competent personnel and adequate funding are available. (a) Appropriate people must be found to act as a Steering Committee. Since so many people are involved elsewhere, the potential value of the project must be sufficiently obvious to attract the services of those who have compatible interests. (b) The Steering Committee must be balanced across relevant dimensions. In the case of this project, the focus was primarily on preparing personnel in mainstreaming. Relevant dimensions include special *vs.* general education; elementary *vs.* secondary; methods *vs.* foundations; and administration *vs.* faculty. For example, it was important that this project not be perceived by the School of Education faculty as a special education project, although a strong relation with special education is essential. The seven members of the Mainstreaming Project Steering Committee have served cooperatively for three years and are viewed as appropriate representatives of the relevant interests in the School of Education.

THE SEARCH FOR A TEACHER-TRAINING MODEL

It was late in 1974 when we reached the conclusion that our regular education teacher-training programs should be adjusted to accommodate the newly emerging concept of mainstreaming. Unfortunately, we did not know very much about mainstreaming. We had our own notions about what mainstreaming should be but we were uncertain of its generally accepted meaning. Review of the literature and research at that time convinced us that we were not the only ones who were unclear and uncertain about mainstreaming. Much had been written about the concept as a concept, but little of this literature had any relevance for building a teacher-training program that was based firmly on information regarding the impact of mainstreaming on the public schools and the effects on children. We observed that most of this early literature had nothing to do with schools and teaching. Worse, it was possible to read at length about mainstreaming without ever seeing anything about children. The research was even less helpful. Typically, the need for further investigation of the issue was a conclusion. Most of the support for mainstreaming was a rehash of the earlier efficacy-of-the-special-class research, which was irrelevant because, operationally, mainstreaming represents a new service-delivery mode, not a simple shift of children within the old special-class/regular-class model.

Back in 1974 and early 1975, it appeared reasonable to consider a training sequence aimed specifically at preparing personnel for a new role, that of the "mainstream" teacher. A single sequence was considered easier to manage and its impact could be more easily determined. Some programs actually began to create a sequence to prepare for a new role somewhere between the special education teacher and the regular classroom teacher. We gave this approach serious consideration, but two deterents surfaced: (a) It did not seem to make sense to prepare for a new role without redefining the old ones and adjusting existing training sequences. (b) A new and competing training sequence in the face of declining enrollments and demands for teachers would have engendered justifiable resistance. The decision was made to supplement existing programs, not to supplant them, despite the complexity of this alternative.

Since mainstreaming implies a comprehensive system of supportive services, including access to a helping teacher/resource room teacher, the adjusted role of the regular classroom teacher is not simply equivalent to that of special education personnel. The issue that we were forced to face early was the nature of the regular classroom teacher's role in school systems that mainstream handicapped children. If we were to prepare students for this role, we needed a specification of desired qualities, attributes, or competencies.

When the research on the relation between teacher abilities and student performance was examined, little guidance was found. In the literature on teacher education, controversy appeared to rage among competency-based education, humanistic teacher training, and traditional models. We believe that it is not necessary to adopt a singular perspective; all have some relevance because we are striving to prepare competent, humane, and employable teachers.

The Development of the Conceptual Training Model

Three items provided a focus for our work. (a) A few years ago, we explored various specifications of professional standards and trainee evaluation criteria in pursuit of a comprehensive evaluation scale for special education undergraduates. The instrument that finally evolved was too detailed and lengthy to be useful, but the process led us to understand the importance of knowledge, attitudes, and performance abilities in teacher preparation. (b) The School of Education formed a Task Force on Innovative Teacher Education in the early 1970s. One of the outcomes of this task force was a Competency Evaluation Scale that represented a degree of consensus among the many training sequences. (c) The most influential focal point was a three-factor conceptualization of teacher training developed in the sixth elementary program, *Teaching as a Psychological Process.*

The three factors in the conceptualization are (a) teaching competence, (b) interpersonal relations, and (c) personal and stylistic development. The importance of this conceptualization to our thinking on mainstreaming rests in its incorporation of a humanistic philosophy while, at the same time, it stresses the competencies required for successful performance of the teaching role. These three influences, together with our emerging understanding of mainstreaming's implications, were synthesized into a conceptual framework we designated the Conceptual Training Model (Fig. 1). Descriptions of the 11 goal areas in the model are too lengthy for inclusion here but are available in a brief catalog.

It should be noted that the conceptual model is more than a listing of competencies. It articulates the interrelation of the beliefs and values of the program. Recently, we conducted research on the continuing personal training value of these goals for a small group of selected, highly motivated novice teachers. Five model-consistent factors continued to have training value. Two of these factors ("teaching responsibilities and

	Teaching Competence	Interpersonal Relationships	Personal/Stylistic Development
Knowledge	#1. Knowledge about teaching	#6. Knowledge about people	#9. Knowledge about self/teaching style
Attitudes	#2. Attitudes toward teaching	#7. Attitudes toward others	#10. Attitudes toward self/teaching style
Performance Abilities	#3. Planning/Preparation of learning environment	#8. Relating with others	#11. Personal and stylistic abilities
	#4. Implementation of educational program		
	#5. Classroom management		

Fig. 1. Conceptual training model. This model was developed conjointly by the University of Michigan Program Six: Teaching as a Psychological Process, and the Project on Mainstreaming, based upon an earlier conceptualization by W. C. Morse, Chairman of the Combined Program in Education and Psychology. See W. C. Morse, F. B. Bruno, & S. R. Morgan, *Training teachers for the emotionally disturbed:* An analysis of programs. Ann Arbor: School of Education, University of Michigan (no date).

skills" and "child management") accounted for 36% of the variance. These factors are typical of most objectives lists. The other three factors ("I, the teacher, teaching," "clarification of values," and "values in teaching") accounted for 64% of the variance. These factors are often overlooked in program design or are so vaguely defined that they are of limited usefulness.

Our next preliminary step was to draft an overview of a potentially feasible but deliberately idealistic training program. A teacher-training program is a complex entity. It is not at all unusual for a new faculty member to require a year or more to begin to understand his school. It was important to our planning to cast our ideas in some understandable form. After reviewing some of the literature on teacher-training designs, we were able to synthesize several ideas into a framework for our idealistic design. In retrospect, we can see that the activity was useful in focusing our attention on the teacher-training process, but the training model per se in its 19 double-spaced pages is woefully superficial.

One other part of our context affected our approach. During the planning period we were actively involved with a joint committee of public school administrators and teachers who were also planning a project on mainstreaming. The objective of this project was to provide a system of supportive services to regular classroom teachers who had exceptional children in their classes. The two elementary schools which the committee chose for its pilot venture into teacher supportive services were the practicum sites for one of the training sequences (Program 3: *Field-Based Elementary*). Both the public school project and the elementary program were willing to cooperate with our emergent project.

Implementation of the Dean's Grant Project

During the first term of the 1975-76 school year, we tested our ideas in the field-based elementary program. The program included both prestudent teachers and student teachers. Both groups were receiving practicum experiences in the pilot schools and each group was required to enroll in seminars taught in the school. Three types of supplemental activities were made available to the students and their supervising teachers: (a) a field-based seminar, (b) speakers and visitations, and (c) an orientation presentation on mainstreaming. Additionally, project staff were available on an informal basis to consult with the supervising teachers. The informality of this arrangement was an attempt to prevent our being perceived as competing with consultants from the department of supportive services and the intermediate school districts. More important, we were not offering the same type of consultation that was provided by the resource room/helping teachers in the schools.

SUPPLEMENTARY TRAINING ACTIVITIES

The field-based seminar had a methodological focus. Stress was placed on diagnostic-prescriptive teaching, understanding special needs, and means for individualizing instruction. The person who taught the seminar was able to provide sample materials and concrete examples which often were tailored to the students' specific situations. Teachers and students alike were given opportunities to explore the instructor's resource files and were given access to other resource centers in the University.

The orientation session concentrated upon introducing mainstreaming and associated concepts. The one-hour presentation was designed to be used with pre-service students and in other course offerings in the school. During its development, the content was field tested with the elementary students and pre-school student teachers.

The speakers and visitations were undertaken to acquaint the pre-student teachers, student teachers, and their supervising teachers with other supportive resources in the area. Visits were made to school systems, intermediate school district material resource centers, and facilities delivering services to exceptional children.

Evaluation

At the end of the Fall term, the impact of the seminar was formatively and summatively evaluated using various available data sources, including a program evaluation questionnaire completed by the students. In a summative sense, the evaluation was quite positive and showed evidence of positive attitude change. Viewed formatively, the results suggested several significant changes: (a) The content was appreciated by the students but there was a plea for more. A single weekly seminar was not enough time to adequately meet their needs, especially in the area of what-can-I-do content. The following term two separate seminars were offered, one continuing the methodological focus, the other of a more theoretical nature. (b) Pre-student teachers were a less appropriate audience for supplementation than were student teachers. Available evidence indicated that both groups profited from and needed the training the project offered, but the differences precluded grouping them together. During the following term, limited resources suggested a focus on student teachers only. (c) Our perspective on the modularization of content changed. The one-hour orientation session was originally conceived of as leading to a slide-tape module which could be delivered by anyone. This idea began to take on the proportions of a major task. When we talked with other professionals in the field it was apparent that many projects were involved in instructional materials and media development. We decided to abandon modularization and to expand the content of the orientation presentation in the theoretical seminar discussed previously.

During the next term, the faculty member responsible for conducting Program 3 went on sabbatical leave. We were offered the opportunity to assume full responsibility for student teachers. The correlation of mainstreaming content and field-based training of elementary student teachers was accomplished through (a) the student-teaching experience in the pilot schools, (b) a methodological student-teaching seminar, (c) student-teaching supervision by the project field coordinator, (d) a weekly theoretical seminar on exceptionality, (e) visitations to resource centers and service facilities, and (f) advisement and counseling by project staff.

Evaluative data were collected on the students who participated in this direct training program and some observations were made; the latter have formative implications for future project activities.

1. The direct training of students to become teachers is a major effort requiring the large-scale investment of resources, especially in field-based programs. To assume responsibility for direct teacher training and, at the same time, to develop knowledge, attitudes, and skills with exceptional children increases the investment. It is our considered opinion that direct training of regular education personnel through Deans' Grants Projects can be done, and can be done well. So our data, students, their teachers, and our staff tell us. Nonetheless, the investment required of a small staff such as ours is too large, given the return. In a cost-benefit mode, the cost is too high. The resource expenditure undoubtedly can be better used in working jointly with elementary and secondary teacher trainers to provide expanded services.

2. A number of field-based, humanistically oriented pre-service elementary programs already in existence do a fine job of training classroom teachers. These programs, by necessity, must make the investment that full responsibility requires but they often lack the resources to take their programs that one step further toward including knowledge, skill, and attitudinal information about children with special needs. Herein lies fertile ground for our efforts: freeing resources for broader and deeper impact on the pre-service training sequences and facilitating preparation of the training context.

OTHER TRAINING AND COLLABORATIVE ACTIVITIES

The project is also having an impact on the preparation of graduate students, of whom many will serve as master teachers for pre-service students and some will continue their careers in teacher training. For example, the project staff is currently composed of seven post-M.A. degree students selected from various programs in the School of Education. Including them has had the additional value of giving the project greater visibility as a School of Education project.

We also have taught several graduate-level courses to practicing professionals: one course offered through our extension services, two taught conjointly on site in a residential facility, and a campus-based course in cooperation with the special education program. Another campus-based course proved to be an interesting and productive experience. It was offered to selected doctoral students in special education and was taught by the project director, the assistant director, and a School of Education assistant dean. The course was atypical in that we formed a cooperative, democratic group to produce a volume on mainstreaming (Bates, West, & Schmerl, 1977). We were concerned with developing our understanding of mainstreaming and providing these leaders-in-training with a product of greater personal value than the typical seminar paper.

From the inception of the project, elementary and secondary science faculty members expressed active interest in mainstreaming. Quite early, we decided to "do something" with science education students and their cooperating teachers. Initially, we were undecided about what to do, so we conducted a needs survey of intermediate and secondary science teachers in the local schools. The survey addressed five areas: (a) inclusion of exceptional students in science classes; (b) extent of modifications engendered; (c) special problems posed; (d) types of modification necessitated; and (e) comments and suggestions on science education for students with special needs (Hoffman, West, Bates, 1978).

As is often the case, designing the survey, clearing it with the appropriate School of Education and public school research committees, and obtaining the active support of science administrators required considerable time and effort. One consequence of our interest in science is that we are now working cooperatively with the Science Activities for the Visually Impaired (SAVI) project, recently initiated by the elementary science program, which is supported by the Bureau of Education for the Handicapped.

We also have helped to develop greater receptivity to the inclusion of content on mainstreaming in training programs as a function of our willingness to cooperatively sponsor singular activities and to teach single sessions in other faculty courses. For example, we recently co-sponsored a showing of the Public Broadcasting Service documentary, "Including Me," with the Special Education Program, visited a center for the moderately mentally impaired with the students in Program 6, *Teaching As A Psychological Process,* and made a presentation on pre-school autism to the training program for the auditorially impaired. It is our experience that such cooperation is usually a low-cost, high-return endeavor.

Cooperation, we believe, extends beyond the boundaries of university training programs or even of the school systems in which our students train and our graduates teach. Universities and colleges are typically active in state, regional, and national areas. In our project, current participation includes the Michigan Task Force on Special Education, the Michigan Advisory Council for Teacher Preparation and Professional Development, and the Statewide Advisory Council on Personnel Development. Such cooperation is usually mutually beneficial. For example, the Task Force on Special Education conducted five statewide public hearings. The Perceptions of the Field Subcommittee conducted a survey of over 1000 leaders across the state. The Project on Mainstreaming assisted in the analysis and interpretation of the results. The latter have proven useful to this committee in formulating and substantiating recommendations that include inservice and pre-service training in the state. Our participation gave greater visibility to our project, but it also provided a firm base for making decisions about pre-service and inservice training priorities in the state. From this survey, we are presently compiling a list of programs and projects in the state which are viewed as models or resources for mainstreaming. This list probably will be useful in future research and training efforts.

The science and task force surveys, previously cited, exemplify our research. The project is also sponsoring an exploratory study on attitude formation toward handicapped pre-school students; a survey of parent attitudes and concerns; a study of interpersonal, personal, and stylistic factors in training in mainstreaming; and a study on the use of computer-assisted procedures for individualizing training plans (ITPs) for pre-service, inservice, and faculty professional development. We contend that university-based projects have a responsibility to investigate basic research issues and to create new insights and approaches to teaching and training.

Impact of the Dean's Grant Project

The project is now in its third year. During our first year we noted that there was general confusion about the meaning of mainstreaming and that regular educators, more often than not, really were not concerned with mainstreaming. During our second year, regular educators were still confused, but a greater proportion saw mainstreaming as having implications for them. Recently, an abundance of articles and information has become available. Regular educators seem to be less confused about what mainstreaming means and, often, less concerned with discussing the reasonability of the concept. With adoption of the regulations for Public Law 94-142, mainstreaming is perceived as a mandate, not a philosophical perspective. Regular educators are now concerned with how to write individualized educational plans, individualize instruction, organize classrooms, manage behavior problems, and locate resources and supports.

When we first began our efforts, we were in the position of convincing regular education faculty that their programs should be adjusted to respond to mainstreaming. They listened courteously; but then they have had a great deal of practice listening to pleas for participation from, for example, groups concerned with multicultural requirements, movement training in music, or gaming. As noted previously, they accommodated to our needs, but not without some resistance. As regular educators become familiar with the implications of the federal mandate, our value increases. Hardly a week goes by without requests for our participation in instruction, inservice, program planning, or consultation.

We are pleased with our popularity. However, education is notorious for sudden fads and shifting interests. To some extent, the permanence of Public Law 94-142 combined with escalating authorizations will reinforce interest in coming years. What we are trying to devise is a multiplicity of means for insuring the integration of content in such a way that the integration is self-maintaining, irrespective of federal supplemental funding for personnel preparation.

We believe that our efforts will have that quality of self-maintenance. We plan and teach with other programs; the resultant effort and products do not belong exclusively to the project but, rather, to the people with whom we work. The content and instructional materials obtained through or developed by the project are shared with and integrated into the various training sequences.

We recently held a 1½ hour workshop with elementary student teachers as part of a half-day, one-time session conducted by all the elementary programs. The content and format of the session was worked out, in large part, by the Elementary Committee. The single filmstrip used was selected on the recommendation of a public school teacher who is participating with the elementary faculty. The project members who presented the material included the coordinator of one of the elementary programs, an assistant dean, and graduate students from special and general education programs. The elementary faculty met afterwards with their students and discussed ways of integrating content on mainstreaming into the training programs. Credit for the success of the session belongs to the elementary faculty in cooperation with the Project on Mainstreaming.

Other examples of cooperative planning and action abound, including the large-scale integration of content and materials with the various elementary training sequences and several of the secondary sequences; instructional activities with the Special Education Program; course development with the Reading Committee and the Elementary Reading Subcommittee; shared consultation with the Project on Educational Opportunity and with Elementary and Career Education faculty members for inservice at another university; discussions with faculty and graduate students who conduct the foundations coursework for all teacher education sequences; and participation in local, state, regional, and national decision making.

The ultimate success of any educational endeavor is assessed through its effect on children. Our impact is, by necessity, indirect. We are working to help teacher-education programs to better prepare personnel who will more appropriately meet the needs of children, all of whom are special in their own ways. Whatever success we are having belongs to those with whom we work: faculty, staff, students, and teachers.

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Section 4

Promising Practices in the Implementation of the Deans' Grants Projects

The case studies of the development and implementation of three Deans' Grants Projects in the preceding section lead to the examination in this section of specific practices by other projects.

In sum, the Deans' Grants Projects engage in a variety of activities to attain their goals. An analysis of these activities reveals that most can be subsumed under two categories: internal operations, that is, activities that focus on change within the school or college of education, and external operations, that is, activities that focus on changing relations with groups or organizations outside the school or college of education. In the first instance, energies are directed toward faculty development, curriculum revision, and/or the development of instructional products (e.g., modules, video tapes). In the second instance, activities are directed toward collaboration with other institutions of higher education or public school personnel within the state or region.

The papers presented in this section provide a detailed examination of each of these thrusts. The practices described in depth are not the sole activities of the projects but were selected for illustrative purposes

The diversity among the institutions conducting these promising practices is worthy of note. The projects are housed in institutions of higher education that vary in size, organization, levels of training (undergraduate and/or graduate), and populations that are prepared (e.g., regular classroom teachers, counselors, or school administrators), and that may or may not include special education as an organized field of study. Since such diversity is characteristic of the institutions housing Deans' Grants Projects in general, the examples presented here are equally diverse in nature. We hope that these accounts of specific project practices will permit readers to compare the processes and problems of implementation within different contexts.

Faculty Development in a College of Education

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ABSTRACT. *One approach to faculty development is discussed in this chapter. Presented are the goals of the program and the underlying assumptions. In general, the focus of the faculty development is information dissemination and skill acquisition. Specific examples of faculty inservice activities also are included.*

After several years of operation, one universal theme (which is obvious throughout this book) among Deans' Grants project personnel is that implementing change in any institution, including institutions of higher education, is a complex process. However, if carefully planned and facilitated, change can occur in an effective manner with a minimum of trauma for the individuals involved, in this case, faculty members of schools and colleges of education.

In general, the Dean's Grant Project in the College of Education, University of Missouri-Columbia (UMC), has viewed change as a highly individualized process. The specific concepts and procedures guiding our change efforts are drawn from the work of Hall and his associates (see paper by G. Hall in Section 2). The purpose of this chapter is to describe how the Dean's Grant Project, which began June 1, 1975, has contributed to the faculty development needs of the College of Education, UMC.

In order to put the activities of the project into some perspective, a brief description of the University of Missouri-Columbia and, specifically, of the College of Education is appropriate. UMC is the oldest land grant institution west of the Mississippi with an enrollment of approximately 23,000, of whom about 2700 undergraduate students and 900 graduate students (M.Ed., Ed. S., Ph.D., and Ed.D. degrees) are enrolled in the College of Education.

The College of Education offers a range of both undergraduate and graduate programs to prepare teachers at the pre-service level and to meet the continuing educational needs of practicing school teachers and administrators. Organizationally, the College of Education is divided into nine departments: Counseling and Personnel Services, Curriculum and Instruction, Educational Administration, Educational Psychology, Adult and Higher Education, Practical Arts and Vocational-Technical Education, Health and Physical Education, Special Education, and Education. This latter department includes the areas of social and philosophical foundations, research methodology, and student advisement. Although all the departments are involved to some degree in the faculty development activities described herein, those that are most intensively involved are Curriculum and Instruction, Practical Arts and Vocational-Technical Education, Health and Physical Education, Special Education, and Educational Administration. These departments were selected as the focus of the Dean's Grant Project because, with the exception of the Department of Educational Administration, they are the only departments that actually prepare undergraduates in teacher education.

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Approximately 200 faculty members hold full- or part-time appointments in the College of Education. Of this number, about 160 are involved in some way with the faculty development activities of the Dean's Grant Project.

The Need for Faculty Development

A number of factors — increased budgetary constraints, declining opportunities to bring in new faculty members, new developments in education, and the public's growing interest in accountability — have brought about an ever-increasing need for a faculty development program in the College of Education at UMC. However, prior to receiving the Dean's Grant, faculty development in the College was sporadic and largely left to the individual faculty member. Because of the emphasis placed upon research and publication in the reward system, most faculty members devoted their time and efforts to these activities rather than to the improvement of their teaching. Except for attending annual conferences of professional organizations and occasionally participating in special institutes or workshops related to their fields of specialization, the faculty gave minimal time to individual or College-wide faculty development activities.

The situation in the College of Education, UMC, is not atypical. Even though teaching is the central and most important task in most higher education institutions, especially schools and colleges of education, little over-all attention is devoted to making it more efficient and effective. The increased interest in the accountability of institutions of higher education by budget-conscious legislatures and the growing concern for teacher effectiveness among college students are not difficult to understand.

Basic Assumptions

Since a planned program for faculty development was unique in the College of Education, considerable thought was given to the planning of inservice activities. The following assumptions were identified:

1. Changes in teacher-education programs with respect to content and/or structure do not occur rapidly, thus implementing changes that focus on serving handicapped students in regular classrooms will be a slow process.
2. Members of the faculty will exhibit differing degrees of interest in the various activities of the faculty development program; therefore, it is not realistic to expect everyone to participate in all inservice activities.
3. Some faculty members will be philosophically opposed to Public Law 94-142 and will openly resist making changes in their courses.
4. Most teacher educators are knowledgeable about conducting successful inservice programs for public school personnel, but they are not particularly adept at conducting or actively participating in inservice projects for their college faculties.
5. Voluntary participation in inservice activities will be more productive in bringing about change than required or coerced participation.
6. An intensive dissemination of information will be needed to develop an awareness of Public Law 94-142 and the need to modify our teacher-education programs. Such a program of information dissemination will provide a solid foundation for implementing actual change activities.
7. Results of the faculty development program will be more effective if faculty members are provided on-going technical assistance when needed and/or requested.
8. Involvement of public school teachers and administrators in some of the inservice activities will enhance the success of the faculty development program.

Goals of the UMC Dean's Grant Project

Several factors contributed to the timeliness of the Dean's Grant at UMC. In 1974, the state legislature passed House Bill 474 that obligates school districts to provide increased educational opportunities for handicapped children throughout Missouri. The pending re-accreditation of the College's programs by the National Council for the Accreditation of Teacher Education (NCATE), which is devoting increased attention to accountability, multi-ethnic education, and improved field experiences in the standards, was an influential factor. Also, continuing cutbacks in the budget of the College of Education greatly diminished the opportunity to bring in talented new faculty members; thus the faculty and administrative staff realized that an inservice education program was needed to counteract the fact that we were all growing older and, perhaps, obsolescent together.

Although the provisions of the Dean's Grant Project focused primarily on retooling the faculty to achieve the goals of Public Law 94-142, it was the intent of the College administrative staff to parlay the inservice efforts into an across-the-board study of the College organization and to review all its teacher-education programs. In addition to modifying the curriculum and instructional program to prepare teachers who can provide for the needs of handicapped children and youth in the least restrictive environment, it was apparent that there was a need to look at the organizational structure of the College to determine the feasibility of providing a more streamlined and efficient method of operation. It was also obvious that consideration needed to be given to such factors as the role of alternative programs in the College curriculum, and the roles of multiethnic education, career education, drug and alcohol abuse education, and other eminent social needs.

The Dean's Grant Project at UMC is referred to as Project PREME (Preparing Regular Educators for Mainstreaming the Exceptional). Although the major goal of the project is faculty development, a second component is an experimental program that provides a special sequence of courses and practica to prepare pre-service students to teach handicapped children in regular classrooms. Initially, the experimental courses and the practicum opportunities in public school settings for the PREME students created an interest in mainstreaming among faculty members through student feedback. Beginning in 1978, the experimental program will provide a mechanism for faculty development by involving faculty members from the Department of Curriculum and Instruction in team teaching the courses with the project coordinator who is a special educator.

PREME Advisory Committee

Prior to the initiation of the project, an advisory committee was selected. At the outset, the committee was composed primarily of College administrators because it was believed that the support of the departmental chairpersons was essential for the project's success. The committee has been expanded since to include key faculty members from the various departments that have a major interest in the project. The primary function of the Advisory Committee is to give direction to the project and to provide project personnel with systematic and candid feedback on the various inservice activities. The committee has played an important role in suggesting appropriate strategies and activities for the implementation of the project's faculty development thrust.

Faculty Development Activities

Thus far, the thrust of faculty development activities in the College of Education has centered on two major phases: (a) information dissemination and awareness development, and (b) faculty skill development. As indicated previously, it was felt that an information-saturation strategy would provide a solid foundation for the future activities relating to faculty skill development. Before asking faculty members to demonstrate skills related to teaching handicapped children in regular classrooms, it seemed advantageous to inform the faculty about the issues and problems surrounding mainstreaming. In addition, faculty members needed the opportunity to express their personal feelings and reactions to the implications of Public Law 94-142 for the teacher-training program in the College of Education. Once these objectives were achieved, it then would be feasible to move into the implementation of change activities.

INFORMATION DISSEMINATION AND AWARENESS DEVELOPMENT

Initially, implementation of the project was concentrated on disseminating information about Public Law 94-142 and Missouri House Bill 474 and on developing an awareness of the need for providing for the education of handicapped students in the least restrictive environment. The efforts consisted of making various pertinent materials available to faculty members, issuing a newsletter focusing on the project, bringing in speakers and consultants, conducting a faculty retreat, and holding informal meetings with faculty members individually or in small groups.

In line with the project's philosophy, an effort was made to involve as many faculty members as possible in the information-saturation activities. Regardless of whether the faculty would become involved in the skill development phase, the dissemination of information on mainstreaming was seen as an over-all College objective. In addition, as the project moves into the implementation of change activities, information dissemination remains an on-going function.

Mainstreaming Library

A collection of reference and instructional materials in different media, which were related to mainstreaming, was established in the College of Education Instructional Materials Center for use by faculty and students on a loan basis. A number of the most pertinent materials were obtained in multiple copies or duplicated for distribution to faculty members. Information about these materials and new acquisitions are disseminated to the College of Education faculty through the project newsletters.

Project PREME Prints

One of the major efforts for the dissemination of information has been the development of the project newsletter, *Project PREME Prints,* which is published quarterly. The newsletter provides information on relevant legislation, annotated bibliographies of books and other media pertinent to the project, descriptions of relevant professional journals and organizations, and descriptions of the project's activities. The newsletter is sent to each member of the College of Education (approximately 200 people) and selected teachers and administrators in the schools that provide the practica for the experimental training program.

First Faculty Retreat

The first faculty retreat focusing on mainstreaming was held in February 1976, the beginning of the second semester of the first year of the project. The one-day retreat was planned for the dissemination of information about Public Law 94-142 and to develop an awareness of the need to include instruction related to mainstreaming in our pre-service and inservice teacher-education programs. In addition to faculty members from all departments in the College of Education, selected public school personnel participated. The format included keynote speakers and reaction panels as well as interdepartmental small-group discussions. The latter activity was particularly valuable in helping faculty members to address the implications of the mainstreaming concept for the teacher-education programs of the College of Education. The evaluation of the retreat clearly showed that it effectively fulfilled the program objectives.

Informal Faculty Meetings

Based on feedback from the faculty retreat, project personnel held numerous informal meetings with the faculty members, individually or in small groups, of those departments that would have a major involvement in the skill development phase. These meetings provided opportunities to discuss various strategies for working on skill development. As such, the meetings served as a transition into the next phase of faculty development by identifying specific individuals who were interested in and/or should be involved in change activities and in developing a series of inservice activities that would take into consideration the various learning styles of the faculty members. It is interesting to note that despite the fact that we as teacher educators stress the importance of learning styles in students, both handicapped and nonhandicapped, we seldom apply that information in the development and implementation of college-level inservice. Nevertheless, one of the most obvious facts that emerged from our informal faculty meetings was that while faculty members were ready to move into skill-development activities, they had strong preferences regarding the means for the acquisition of these skills. This information was used as the project moved into the next phase.

FACULTY SKILL DEVELOPMENT

The aforementioned activities focused on information dissemination and awareness development with respect to providing the least restrictive environment for the education of handicapped children and youth. Faculty participation in the various activities and informal feedback indicated that a majority of the faculty members were aware of the need to include in the teacher-education programs instruction that prepared preservice and inservice teachers to function in mainstream classrooms. The project personnel and the Advisory Committee realized that the focus of the project should be shifted from information saturation to faculty-skill acquisition. Thus, efforts were directed toward providing experiences for faculty members which would further their knowledge and skills related to mainstreaming. These activities included the initiation of a curriculum review process, faculty inservice seminars, a two-day College-wide retreat, and a series of interuniversity meetings and workshops.

It should be noted that while a few of these activities involved a large number of the faculty, the majority of events, by design, encompassed limited numbers of faculty members who would participate in the continuing process of change implementation. The selection of these faculty members was made by the Advisory Committee and project personnel.

Curriculum Review

The Advisory Committee endorsed a plan to undertake a curriculum review of the College of Education with respect to the education of exceptional children in regular classrooms. The review consisted of two major tasks: (a) a needs assessment focusing on the competencies needed to teach exceptional children in regular classrooms, and (b) an analysis of the current course content and instructional activities related to mainstreaming.

Needs Assessment. In the needs assessment, a master list of competencies related to teaching exceptional children in regular classrooms was compiled and given to selected groups of educators for rating on relevance. The list was drawn from existing sources, such as, other Deans' Grants Projects and various publications. The master set of competencies then was submitted to the faculty of the Department of Special Education and selected regular education teachers and administrators. Each person was asked to rate each competency on a five-point scale with respect to its relevance for teaching exceptional students in the regular classroom. Those competencies that were given a mean rating of 3.0 were retained on the master list. This set of competencies has been employed in several ways, including the evaluation of Project PREME students who participated in the experimental training program.

Curriculum Analysis. The curriculum analysis focused on the review of the current curricular offerings in the College of Education in relation to the preparation of teachers for mainstreaming. Using the final competency list developed as part of the needs assessment phase, College of Education faculty were asked to indicate if and where in the existing training curriculum each competency was being taught. The data from this activity have been useful for determining areas of strength and weakness of the existing curricular offerings and giving direction to curriculum development. Once curricular gaps were identified, steps were taken to make the needed adjustments. Although the initial stages of needs assessment and curriculum analysis are not actually faculty development activities, they have led to the identification of those faculty members who will be responsible for integrating revisions into the teacher-training curriculum and, therefore, are the logical participants in more intensive faculty development activities.

Faculty Inservice Seminars

Following suggestions made by College of Education faculty members, a series of five weekly seminars were conducted during the Fall of 1976, the first semester of the second year of the Dean's Grant Project. Each seminar was scheduled for 1 1/2 hours and focused on an area of exceptionality. During the first half or two-thirds of each session, a presentation was made by a member of the faculty of the Department of Special Education; the last portion of the session was an open discussion. The specific topics treated in these seminars were learning disabilities, behavior disorders, mental retardation, physical impairments, and gifted pupils. Preceding each session, a paper related to the topic was distributed to all members of the College of Education faculty. The seminar expanded on the material in the paper. Thus, through both the paper and the presentation, the faculty received information on definition, prevalence, learner characteristics, educational programing, and implications for mainstreaming students in the different categories of handicap. Follow-up feedback on these seminars indicated that they were an important means of increasing interdepartmental communication. Interestingly, the seminars were a stimulus for other faculty members to conduct similar seminars on programs, issues, and concerns in their areas.

Two-Day Faculty Retreat

During the intersession of the second year of the project, January 1977, a two-day faculty retreat was held off-campus for the entire faculty of the College of Education. Because the first retreat had been highly successful, project personnel felt that a second retreat for all or at least a majority of the faculty also would prove beneficial. As indicated previously, one of the goals of the Dean's Grant Project was to examine the goals, missions, and programs of the College of Education in relation not only to mainstreaming but, also, multi-ethnic education, career education, and drug and alcohol abuse education. Therefore, the working sessions of this retreat focused on three major interrelated topics: (a) preparing teachers, administrators, and special service personnel to cope with the progressive inclusion of exceptional and minority group students; (b) ways of organizing or reorganizing the resources of the College of Education to prepare such personnel; and (c) establishing priorities for the future of the College of Education. The specific details of the program were planned by a steering committee comprising a representative from each department of the College and the director of Project PREME. A survey instrument was developed and administered following the retreat to assess the thoughts and preferences of the faculty on the three major topics. The results showed that the majority of the faculty was aware of the need to include instruction pertaining to mainstreaming in all teacher-education programs and that all faculty members concerned with inservice and pre-service programs should assume the responsibility for teaching mainstreaming concepts and methodology.

Interuniversity Activities

During the second and third years of the project, selected faculty members have been involved in a series of interuniversity activities relative to mainstreaming. These conferences and workshops provided the faculty members with the opportunity to (a) increase knowledge and skills, (b) interact with colleagues from other institutions of higher education, and (c) apply newly acquired skills. Although several such meetings were held, only two are described here; they had particular significance because of their value and impact.

Tri-State Conference. In December 1976, the Universities of Kansas, Nebraska, and Missouri held a two-day conference on Public Law 94-142 and its implications for higher education. About 30 faculty members from the various departments of each institution participated. Of particular value at this conference was the opportunity for the faculty members to interact and exchange ideas and concerns in small-group discussions. The benefit of learning what one's colleagues are doing on their campuses, their involvement in their Deans' Grants Projects, as well as their personal and professional reactions to mainstreaming cannot be overestimated. Evaluation of the conference confirmed its value as an opportunity to expand skills and, also, as a forum for the exchange of ideas. One additional result of the conference was the publication of the proceedings and its distribution to all the education faculty members in the three universities.

Missouri Interuniversity Workshops. Beginning in September 1977, the Dean's Grant Project, UMC, initiated a series of four 2-day workshops for 8 other institutions of higher education in the state. Each participating college sends a team of four faculty members representing elementary education, secondary education, vocational education, and health and physical education. The general purpose of the workshops is to share with the participants information on the concept of the least restrictive environment and to address the implications of the concept for teacher-training in Missouri. Specific workshop topics include Public Law 94-142, mainstreaming competencies, designing individualized education plans, individualizing instruction, teacher-training materials for mainstreaming, and alternative approaches to training teachers to work with handicapped children in regular classrooms.

The potential value of such workshops to teacher training in the State of Missouri appears great; the benefit for faculty skill development at UMC is extremely valuable. For example, the development and implementation of the workshops is an interdepartmental activity which is directed by a six-person committee that includes faculty members of the Departments of Curriculum and Instruction, Health and Physical Education, and Practical Arts and Vocational-Technical Education. The coordinator of the committee is the chairperson of the Department of Curriculum and Instruction. The coordinator of the Dean's Grant Project is an ex-officio member of the committee.

Not only do UMC faculty members have the responsibility for designing the workshops but, also, they are actively and integrally involved in conducting the programs. For example, in the first workshop, four of the six major presentations were made by faculty members of the Department of Curriculum and Instruction, Health and Physical Education, and Educational Administration. Thus, the workshops provide a vehicle for faculty members to apply the knowledge and skill they have acquired during the previous two years. In addition, follow-up technical assistance to each of the participating institutions will be provided by the UMC faculty.

Evaluation

If systematic programs for faculty development in institutions of higher education are of recent origin, evaluation thereof is truly in an embryonic stage. This paper is not the place for a discourse on the many issues and problems related to the evaluation of faculty development but we can share briefly several ideas on our approach to evaluation as it relates to the faculty development phase of our Dean's Grant Project.

To guide the over-all direction of our evaluation plan, an advisory committee was established during the first year of the project. This committee consisted of project personnel and a faculty member from each of the following departments: Curriculum and Instruction, Health and Physical Education, and Practical Arts and Vocational-Technical Education. The faculty members were selected by their respective departmental chairpersons for their expertise in research and evaluation and their interest in mainstreaming. Besides the valuable contributions of this committee to evaluation strategies, additional benefits have resulted. (a) The committee provides another mechanism for interdepartmental interaction and communication on mainstreaming, thus involving more faculty members in project-related activities. (b) The committee allows us to use the skills of our own faculty.

Our approach to evaluation has had both an immediate and a long-range focus. We have, of course, used questionnaires and rating scales to evaluate the various developmental activities of individual faculty members, which have provided us with information on knowledge gained and attitudes developed toward the various activities, as well as reactions to the logistical aspects of these activities. Such information is important for the development and implementation of future activities.

A systematic approach to long-range evaluation of the Dean's Grant Project also has been initiated. The evaluation involves using the procedures described by Hall (see paper by G. Hall in Section 2). Although the evalution of the individual activities provides valuable information on discrete activities, a more encompassing view of progress in the area of faculty development is also crucial. By assessing "Stages of Concern" and "Levels of Use," we are able systematically to evaluate the faculty's involvement in and attitudes toward the Dean's Grant Project. Thus, we have an on-going indication of the effectiveness of the project's activities.

Summary

The Dean's Grant Project has allowed the College of Education, University of Missouri-Columbia, to embark on a planned approach to faculty development as it relates to the concept of the least restrictive environment. Through a variety of activities, including retreats, conferences, and seminars, the goals of information dissemination and skill development have been undertaken. The data to date suggest that the information-dissemination phase has been achieved most successfully and that faculty members are primed to move into implementation.

Hall indicates that the process of the institutionalization of change may require different skills and, hence, probably different people than does the process of initiating change. This suggestion has received our serious consideration. As a result, our approach to faculty development has been modified. A network of faculty facilitators has been established which has as one of its major responsibilities the individualizing of faculty inservice activities for each department as well as coordinating College-wide faculty development. Our early assessment of this strategy indicates that it will be very effective.

A Cross-College Interdisciplinary Approach to Staff Development

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ABSTRACT. *Bank Street College is currently in the third year of its staff-development project in mainstreaming. During the past two years, 34 faculty members have participated voluntarily in the program with continued commitment and interest. The program now has been extended to include staff in every division of the College and to reach the graduate students and trainees served by our institution. Various aspects of the program, some of the problems encountered, the findings, and future plans are described in this paper.*

Life-long learning, continuous professional development, adult education, and inservice training are just some of the phrases one frequently hears these days in reference to professional and personal growth. However, large-scale organized inservice training for school staff, designed to improve the program of a school, is a relatively recent phenomenon, evolving with the growth of major federal funding of school programs. In institutions of higher education, also, staff development is still not a common practice. Although guest speakers may be invited periodically to address the faculty and consultants are brought in to assist with particular projects or programs, little appears to be done as an all-college activity or as a continuous program in a department or division of a college.

Bank Street College has had intensive faculty-development activities throughout its history. As the College gradually became a larger institution (from 113 staff members in 1966 to 163 in 1977), fewer of the staff-development activities have been College-wide; most have taken place in relation to specific program areas. The Dean's Grant Project, *Staff Development in Mainstreaming*, has enabled the institution to participate again in cross-College staff-development activities in an area of concern affecting all our programs. The guarantee of an education for all children, including the handicapped, in the most effective and least restrictive environment is seen as central to our institutional goals and efforts.

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Bank Street College of Education

Bank Street College is a graduate school of education. Its Graduate Programs Division serves a multitude of adults in their need for professional development through pre-service and inservice programs in Teacher Education, Supervision and Administration, and Counseling. However, Bank Street is different from many other colleges of education in that it has a number of divisions that carry out related activities. Our field programs, in training, consultation, program development, and evaluation, serve teachers, parents, child-care workers, counselors, and administrators in 20 different communities across the United States, from Honolulu, Hawaii, to Brooklyn, New York, to Macon County, Alabama, and Ponce, Puerto Rico. Through our media programs — textbooks, films, children's books, television shows, consultations, and curriculum materials — we reach hundreds of thousands of children and adults. Research has been a basic function of the College since it was founded. The Research Division conducts both experimental and applied research in the areas of child development in relation to the school experience, the teaching-learning process, teachers' psychological characteristics as they affect relations with children, and modes of organization within a school system.

The Bank Street School for Children, our laboratory school, is housed in the same building. It provides opportunities for work with and observation of children in learning settings that demonstrate our approach to education and help us in our efforts to integrate theoretical constructs with the reality of the classroom and the school.

PHILOSOPHICAL APPROACH

Our College represents a philosophical approach to human development and learning that guides all institutional endeavors. Its basic tenets are derived from a humanistic position and are encompassed in (a) the "Developmental-Interaction Approach" to education and (b) the view of the "Adult as a Learner" with a potential for continuing development throughout life.

The Developmental-Interaction Approach provides a basic framework for the education of all children whose individual needs and strengths are considered within the context of developmental guidelines toward the optimal growth of each child. Interaction is seen as fundamental to this approach: the interaction of the child with the teacher, other children, and the environment; the development of intellectual processes is viewed as inseparable from the development of personal and interpersonal processes (Shapiro & Biber, 1974). Also fundamental is the organization of the school and classroom as a cooperative social system (Biber, 1975). Among the numerous research and evaluation studies of classrooms in which this approach has been applied are those of Minuchin, Biber, Shapiro, and Zimiles (1969) and Ross and Zimiles (1976ab).

The applicability of this approach to adult learning has been documented in reports of the Teacher Education Program at Bank Street College (Biber & Winsor, 1967; Rosen & Palmer, 1974a). Identified as central to the education of teachers is the mode in which that education is experienced. The advisement process, a unique and most important aspect of the teacher-education program, fosters a close relationship between the student and the faculty advisor who is responsible for his/her total training experience at the College, including the supervision of field work and counseling in matters of professional growth. The student meets with the advisor and a peer group of 6-9 students in weekly group conference sessions and with the advisor in biweekly individual conferences.

The Adult As Learner. The interest in adult learning originally grew out of the institution's concern for the improvement of the education of children. The premise is that children learn best in educational settings when the adults themselves are in a continuing process of learning and self-development. Since then, Bank Street has become an innovative center for professional development in education and related fields with an ongoing involvement in the study of the nature of adult learning and the teaching-learning process (Klopf & Brennen, 1977; Rosen & Palmer, 1974b). More recently, the College has become increasingly involved in inservice leadership training programs directed at school and district administrators. The following five basic principles for effective leadership training provide the conceptual framework for the implementation of these programs (Klopf, 1975):

1. Clarity of role expectation and personal competencies.
2. Awareness by trainees of self and others' perceptions of self.
3. Commitment of trainees to learning and to the development of new competencies.
4. Gaining new knowledge, concepts, and techniques which are perceived by trainees as relevant to their needs and situations.
5. Experiencing and practicing new competencies.

These principles also have guided the staff-development efforts which are described in later sections of this paper.

THE NEW LAW AND ITS MANDATES

The passage of Public Law 94-142 has affected school programs throughout the country. It requires the training and retraining of regular educators, special educators, and leadership personnel. However, we know that the mandates are but a first step. To endow the law with life and meaning requires that all educators develop new attitudes, further their knowledge and skills, make true commitments to the education of handicapped children, and recognize that the integration of handicapped children to the greatest extent possible is desirable from the standpoints of human rights, educational effectiveness, and the needs of our society. Similarly, professionals in related fields need to reconsider their foci and their priorities.

At Bank Street, we recognized the need for change and development among our own faculty as a first step toward achieving our broader goals of contributing to the national effort in implementing the intent of the law in the interests of all children. Therefore, we applied for and instituted a Dean's Grant Project — Staff Development in Mainstreaming — to help our staff develop needed competencies. Starting with a core group of faculty volunteers, the program was designed to include an ever-increasing number of participants toward the eventual involvement of every staff member and trainee in the institution.

In the following sections we briefly describe the staff-development program to date and identify some of its unique features, successes and problems we have encountered, and our future plans.

The Staff Development Program

THE STUDY GROUPS

The initial group of 16 participants formed in the first year of the training program included advisors, course instructors, and program directors in "regular" Teacher Education (7); classroom teachers and supervisory and auxiliary personnel in the Bank Street School for Children (6); field-site supervisors in Follow Through (2); and one program director in Field Services. (The entire college community, including students, was invited to major program events, however.)

This interdivisional, multirole design proved highly successful; it gives participants the opportunity to share concerns and questions specific to their individual roles and functions and to gain from each other's experiences. It was incorporated and further extended in the second year of the project, therefore. At that time, the initial group (Group I) continued as a unit and a second group (Group II) of 18 faculty participants was formed. Staff representation was now extended to every division of the College, including Publications and Media, Research, the Library, and, within the Graduate Programs, Guidance and Counseling. As in Group I, Graduate Programs and the Bank Street School for Children had the largest representation. Again, faculty participants made a voluntary commitment of their time and effort beyond their regular responsibilities.

PROJECT STAFF

The project staff directly responsible for the development and implementation of the training program consisted of the dean, the associate dean (chairperson of graduate programs), the director of special education, two special education faculty advisors, and a senior program analyst. Although the members of the project staff had only part-time assignments to the project, a cohesive team effort evolved which was characterized by the active participation of each project staff member in scheduled program events, including the site visits, mini-source sessions, seminars, and discussions.

PROGRAM ACTIVITIES

Scheduled events included visits to settings in which a range of services was provided to children with a variety of handicapping conditions, including severe and multiple handicaps. Among the sites visited were hospitals, residential treatment centers, special schools, regular schools with resource rooms, special classes, and integrated regular classrooms. The visits permitted direct observation of children participating in a variety of activities, discussions with site staff, and exploration of materials, equipment, and facilities.

In addition, various activities were regularly scheduled throughout each year. They included presentations by guest speakers, workshops, a six-session mini-course on testing, monthly seminars, discussion groups, and film and videotape presentations. A materials resource room, with books, articles, and audio-visual materials, and a bibliography of related readings were also developed.

The limits of this presentation preclude our describing the program in great detail. However, two particularly significant events should be noted. The initial major event of the project, which was open to the entire College community, provided a framework for its further development within the context of the Bank Street approach to the education of all children. Dr. Barbara Biber, Distinguished Research Scholar Emeritus of Bank Street College, spoke on the developmental goals and related environmental and educational supports for all children, handicapped and nonhandicapped. Professor Ronnie Gordon, Director of the Infant and Preschool Developmental Program at the Institute for Rehabilitative Medicine, joined Dr. Biber in this presentation using slides of multihandicapped preschoolers.

A Weekend Institute on Parenting, presented by the Mainstreaming Project at Bank Street College in the second year of the program, in conjunction with the Bank Street Teacher Corps Project, represented a collaborative effort of staff and participants. It was attended by an overflow audience of 224 people — faculty, supportive staff, graduate students in regular and special education, alumni and parents, and professionals in education and related fields. The agenda included presentations by Dr. Albert Solnit, Sterling Professor of Pediatrics and Psychiatry and Director of the Child Study Center at Yale University, who spoke on "The Parental Mourning Reactions to the Birth of a Special Child"; and Dr. Margaret Lawrence, Associate Clinical Professor in Psychiatry at the College of Physicians and Surgeons, Columbia University, who spoke on "Trauma in the Family: Interaction for Survival and Growth." In addition, workshops led by Bank Street faculty and parents of handicapped children dealt with a range of topics related to families of both handicapped and nonhandicapped children, with special focus on minority groups, the legal rights of the handicapped, and the needs and rights of all children. Many participants reported on the deeply moving nature of the total experience and requested further such offerings.

EVALUATION

Evaluation has been an integral part of the program; formative evaluation plays a significant role in the ongoing process of program development and modification. Our experience with the various evaluation procedures and measures used in the project these past two years has revealed their respective merits. Questionnaires and needs-assessment measures that included both open-ended and short-answer items were administered at the beginning and end of each year of the program. The measures have proven highly useful in eliciting the concerns, needs, attitudes, and reactions of participants as well as stimulating further thought and providing for self-assessment.

Similar information also was acquired more informally in seminar sessions devoted to program review and planning by participants and project staff. Although the project staff had the primary responsibility for designing and implementing the program, the participants' needs and interests guided their decisions.

Individual interviews, periodically held with those participants who directed or coordinated College programs, also proved very effective. They enabled project staff to keep closely informed of the special concerns and needs related to specific programs within each division. With the further expansion of the program, this third year, in order to reach a greater number of faculty members we have also introduced a number of short-form measures to be administered throughout the year; their data are more easily retrieved and analyzed.

Summative evaluation plans include pre-post comparisons of participants' attitudes and abilities. They are described further in a later section.

Overview of the Response to the Program

In general, it was evident that participants shared a high degree of interest in and commitment to the program and its goals. All the original members of Group I re-enrolled for a second year, except for one participant who left the institution to study law. (We are pleased to report that she intends to specialize in the legal aspects of aid to children.) In addition, a larger number of volunteers joined Group II during the second year of the project. So much interest had been generated throughout the College that even this larger number could not include all the faculty members who indicated an interest in participating.

Further evidence of the extent of the commitment to the program was shown by the responses of participants to the questionnaires[4] distributed at the end of the second year of the program. Although the responses are discussed more fully in a later section, two very significant findings are reported here: (a) All the respondents in both groups indicated their interest in continuing to participate in the cross-College study program for an additional year, that is, the third year of the project, and (b) the respondents in both groups also recommended that the program be extended to include other faculty members in their divisions.

The following samples of the participants' verbatim responses to the questionnaire items, perhaps, best convey the effect of participation on attitudes and understandings:

> I've become more sensitive to feelings aroused regarding how people react to handicaps, and their tendency to cover up by anger, hostility, or disgust, and more involved in the concept of handicapped children than before, and more sensitive to how children with special needs might affect a family as well as a school and other children and adults.
>
> Changed attitude toward "troubled children" who are within the range of "normal functioning"....their problems seemed so much less serious in comparison with the severely handicapped; more insight into problems which families have to face, solve, and live with.
>
> I've developed greater sensitivity to these children and greater knowledge of them, which I can pass on to my students. I'm also horrified at the lack of awareness in meeting the social/emotional needs of children (found in some settings for handicapped children).
>
> Many aspects of my personal humanism came to the fore. My tolerance for the frailties of the "sound" human being has increased ten-fold. I know now that the sensitivities I expected in all human beings have to be learned.
>
> I find myself better able to face and interact with disabled (children); less anxious.
>
> I know my own fears and hesitancy about working with handicapped children.... the visits and information helped somewhat — personally, it created tremendous sadness.
>
> I feel less afraid of children with special needs — more confident of my ability to interact with them as a teacher who knows children.

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[4] Questionnaires were returned by 80% of the participants.

Factors Supporting the Program

It may be useful at this point to review those factors that appear to have been most supportive of the project and to have helped to enlist the ongoing commitment and involvement of the participants. Some factors are integral to the program and already have been identified.

1. The composition itself of the group of faculty participants in the training program made for a richer and more stimulating interchange of ideas and experiences. The author of children's books and the researcher in child development learned side by side with colleagues working directly with children in the classroom, those responsible for the education of teachers and leadership personnel, and directors of programs within the institution or in nationally based projects.

2. Program development was a collaborative effort. Participants were involved in planning, modifying, and in some instances, implementing the evolving program with formative evaluation procedures which were designed to provide for objective and open communication between the participants and the project staff. Although the members of the project staff had the primary responsibility for program development, the participants contributed at each point in the process, moving the project closer to the achievment of its objectives.

The very successful open Institute on Parenting is an excellent case in point: The suggestion for the Institute and its particular focus came from the participants themselves at the assessment discussion which was held at the end of the first year of the program. Participants stressed the need for more understanding of how the family of the handicapped child is affected, and how parents can be supported in their efforts to help their children. Some of the participants joined in subsequent planning sessions; others led related workshops at the Institute in which parents of handicapped children and faculty members made presentations. This type of collaboration has been identified as a significant component in staff development efforts (Arends, 1977; Klopf, 1975); degree of participation has been found to influence the persistence of desired attitudinal change (Watts, 1967).

Participatory and experiential approaches also were emphasized in program content. The site visits scheduled throughout the year enabled participants to interact with handicapped children who were participating in many different types of activities and situations. These opportunities for first-hand observations and, in some cases, informal interactions with one or two children, were very new experiences for most of the participants and appeared to evoke a deep personal involvement and interest as well as professional concern. Even those settings that were considered to be less effective than others proved useful: In lively follow-up discussions, participants raised challenging questions on what appeared to them to be unnecessary restrictions and disregard for the interactional needs of the children. Discussions of issues relating to the preparation and ongoing support of classroom teachers and other personnel moved from the abstract to the practical and urgent as a result of observing a situation in which teachers in "integrated" classrooms appeared to be inadequately prepared and supported.

The importance of these direct experiences was clearly recognized by the participants themselves who rated most of the visits as highly useful. The direct quotes presented previously represent but a few examples of the participants' own statements regarding their prior fears and anxieties about handicapped children and their new awareness and involvement.

3. An additional factor, external to but most supportive of the program, is the very nature of the institution itself. The faculty's willingness to volunteer as participants in a time-consuming and demanding program and the cooperative interaction among participant groups, which cut across roles and functions, undoubtedly were influenced by the shared belief in Bank Street's basic philosophy and approach to education. Bank Street's emphasis on individualized instruction, respect for individual differences, and recognition of the need for providing an educational environment that supports social and emotional developmental needs as well as cognitive growth, relates directly to the mandates of Public Law 94-142 and their effective implementation. It also provides for a common base that unites special and regular education. This unity has been in evidence in the Special Education Program in the Graduate Division since its inception; graduate students are traditionally assigned to field-work experiences in regular education settings before they are assigned to experiences with handicapped children (Pfeiffer, 1974).

Certainly, these shared beliefs created a supportive milieu for our faculty-development program. Valid questions may be raised regarding the extent to which our staff-development program can be effectively applied in other settings. A number of dissemination projects to be implemented this coming year will provide further data. However, at this time we can report that one dissemination project, in which a number of our project staff members conducted a staff-development program for a group of 19 principals, has proven to be highly successful (Pittsburgh Principals' Report, 1977). In this instance, the application of principles of adult learning and the approach to program development (described in a preceding section) appeared to support the implementation of the approach in a far less unified setting than that of our own institution.

Other Findings

We have described the positive aspects of our project in some detail and have sought to identify the salient features contributing to the program's effectiveness. Does this mean that we have no problems to report? On the contrary, most important among our many learnings of these past two years has been the recognition of the complexity of the program's area: its roots in deep and generally hidden attitudes, the breadth of interdisciplinary content involved, and the range of skill-based competencies needed. Our voluntary faculty participants, although positive in their evaluation of the program's achievements, demonstrated their awareness of both the complexity and importance, asking for "more" for themselves and others who had not as yet been involved in the study groups, with role-related skills identified as further needed by most of the participants (End-of-Year Questionnaire).

Similar views were expressed in the individual interviews with participants in administrative or supervisory roles: the director of teacher education, coordinator of supervision and administration programs, and coordinator of inservice degree programs in the Graduate Division; director of Parent Child Development Centers (PCDC) in Field Services; and two Bank Street School for Children advisors responsible for supervising the laboratory school classroom programs. Each described the project as providing a highly valuable contribution to the work in his/her respective division and program, reported generally feeling very rewarded by participation in the study groups, but also stressed the need for greater focus on the development of specific skills.

In the questionnaire responses as in the interviews, recommendations regarding further training needs dealt primarily with the following areas:

1. Provision for in-depth study of individual children with special needs, enabling participants to increase skills relating to differential diagnosis, individual program planning, and assessment.
2. Study of a broader range of special needs (including the handicapped child for whom English is a second language), with the focus on criteria for making placement decisions toward increasing skills related to determination of which alternative could provide a particular child with the most productive and least restrictive environment.

In addition, requests were made for further study of effective mainstream programs and practices, new laws and their implications, and ways of helping educators and parents to work together most productively and effectively in these efforts.

Organizational problems, identified both in questionnaires and interviews, were related mostly to schedule conflicts and the pressures on and frustrations of busy faculty members when they were unable to attend program events or follow-up discussions because of other commitments. The latter were cited as the primary reason for nonattendance. In particular, the classroom teachers in the Children's School were described as needing more released time in order to make site visits; some of the teachers recommended that the site visits be scheduled at times when the laboratory school classes were not in session. (This concern was also expressed in relation to the extension of the program to graduate students who are also classroom or student teachers.) Personal reasons or lack of interest in a specific event were cited in very few instances as reasons for nonattendance. It should be noted also that a number of participants in the two groups were able to attend only a limited number of scheduled events during the second year of the project; serious illness required two to take temporary leaves of absence, and professional responsibilities required four to make repeated visits to field sites in other parts of the country. In each case the participants indicated their interest in continuing with the program.

The project staff, in the self-assessment and review session at the end of the second year, agreed, in general, that there had been considerable movement toward the achievement of basic objectives relating to attitudes toward the handicapped and their education, and of knowledge of a range of handicaps, resources, and educational approaches. It was quite evident, however, that continued training and study was essential if participants were to feel competent to apply their learnings to their professional roles, and if their initially raised consciousness and sensitivity to the needs of the handicapped were to develop into that deeper attitudinal change that is necessary for continuing involvement and insightful application of abilities.

Of particular interest was the finding that all the respondents in Group I stressed areas of increased knowledge resulting from their second year of study. Although most of the respondents in this group also referred to personal growth, their statements were general and did not compare in intensity of feeling to the statements made by the respondents in Group II (first year of study). Group II reported on attitudinal changes in moving terms, and so did the Group I respondents at the end of their first year of participation. This finding seemed to indicate that the more dramatic changes in attitudes which are evident to the participants tended to take place in the first year or initial period of study in each group. One second-year participant, in looking back reflectively at the two years of her participation, described the first year as "an exciting, eye-opening experience." in contrast to the second. It was noted by project staff that although attitudinal change was indeed the primary objective for the first year of each group, still to be considered were questions regarding the extent to which participants in Group I could have been provided with some of the in-depth experiences, suggested in the needs assessments, in their second year of study, thus following up the first year with a more intensive program.

In general, it was apparent that participants needed futher support in their efforts to integrate and apply their learnings to the enactment of their professional roles, whether classroom teachers, teacher trainers, program directors, writers, or researchers. One second-year participant provided the following summary in terms of her own needs:

> The complexity of this subject is overwhelming and includes an enormous range of material. It's difficult to integrate, and needs time as well as special sessions and special efforts.

The Current Year

We are presently involved in the implementation of the third year of our staff-development project. Our plans call for expansion of the program to reach all faculty members throughout the College. A most important development of this phase of the program is the collaboration of the participants of Groups I and II in the staff-development effort with project staff. Establishment of a supportive network within the institution that reaches out from those who have already begun the process is central to our project goals. Although some special sessions will be directed at the needs of specific groups, the interdivisional groupings will be generally maintained to the extent possible.

We already have scheduled a number of College-wide events to which graduate students also have been invited: presentations and discussions relating to the new laws and their implications, presentations of a number of contrasting approaches to mainstreaming in programs which have been in operation for some time in various parts of the country, and a series of seminars and workshops on the development and assessment of individual educational plans and related work with parents. In addition, initial arrangements for the in-depth study of individual children with special needs have been made; faculty in the Bank Street School for Children will work with faculty in the Graduate Division on the further development of this part of the program.

DEVELOPMENTS IN GRADUATE PROGRAMS

A particular focus in the third year of the project will be on developments in Graduate Programs in regard to the training of teachers, leadership personnel, and counselors as they relate to project goals.

A number of important developments which already have taken place can be reported at this time. (a) Conference groups have been formed to include students from Special and Regular Education Programs. More recently, mixed conference groups have been formed under the supervision of faculty advisors who are experienced in both special and regular education, with the focus on a broader continuum of individual differences and needs. Evaluations by students and faculty generally have been very positive, and the design has been extended in the current year. (b) Individual conference groups, made up of either special or regular education students, have met on occasion for special combined sessions for the discussion of issues related to children with special needs in the regular classroom.

Tentative future plans regarding graduate students, which have grown out of the recommendations of participants in their questionnaire and interview responses, include provisions whereby all graduate students will have some direct contact with a range of handicapped children. Plans include regularly scheduled visits to settings for handicapped children, special times set aside for these site visits, and special placements that offer a variety of possible experiences working directly with handicapped children (e.g., after-school programs or one-to-one tutoring). Also considered are plans for the pairing of regular and special education students in field-work assignments. In addition, all coursework is expected to increase the focus on a broader continuum of individual needs; additional program development and modification will be made as needed. A number of faculty meetings, which have included adjunct course instructors, already have been devoted to this concern and additional meetings are scheduled.

OTHER DEVELOPMENTS

We have been particularly gratified by the cooperation and support shown by the faculty at large. Examples of efforts initiated by the faculty members themselves, as well as those made in response to our requests for assistance, follow: The library faculty has offered to set aside a highly visible and accessible area in the library to be devoted specifically to our project. (Our former resource room was found to be inadequate for this purpose.) Readings, audio-visual materials and related resources will be maintained and kept up-to-date with the cooperative efforts of project and library staff. The participant responsible for the children's library has offered further to develop our bibliography and collection of children's books relating to this area. Our reading specialists in the Laboratory School and in Graduate Programs have volunteered to conduct related workshops demonstrating the use of selected curriculum materials. Faculty members in Publications have helped to identify a fine preschool program in which both staff and children were mainstreamed, and presently are seeking to incorporate relevant material into their writings for children. Faculty members in research have identified research questions and currently are involved in a number of related projects. These few examples of current efforts reflect the growing concern for handicapped as well as nonhandicapped children.

The physical plant also has been undergoing changes these past two years: A ramp has been erected at the entrance of the building; public telephones in the lobby and drinking fountains throughout the building have been lowered to accommodate the handicapped in wheelchairs. In addition, hand bars have been installed in bathrooms and braille symbols in the elevators. Our daily observations of these alterations have stimulated new awareness of the special needs of the handicapped and of the frustrations and difficulties they generally encounter when physical adaptations are not made in their settings.

SUMMATIVE EVALUATION

Plans for summative evaluation of the project include, in addition to a pre-post comparison of participants' attitudes and abilities, a focus on the nature and extent of interdivisional collaboration in project-related efforts and on the impact of the program both within the institution and in outreach efforts. In addition, the assessment will focus on the extent of change in Regular Education and Special Education Programs toward achieving the increasing "interface" between the two programs.

Beyond the Third Year

We look forward to continued development toward project goals beyond the third year of our project. We recognize, as Arends reminds us earlier in this book, that "significant, widespread, and durable change cannot occur quickly." The project goals have broadened in scope, during this period, as we have come to greater understanding of the complexity of this area of effort. The statement made by one of our faculty participants in the End-of-Year Questionnaire is very relevant:

> Participation in this program has made me rethink the whole structure and substance of teacher education vis-à-vis the total population of our schools, both public and private....It has also reinforced my belief that in many instances there is a false dichotomy between "special education" and "regular education" and that in teacher education we need to encompass the range of unique and individual differences.

The following statements of our project's broader goals can, perhaps, best provide an indication of the scope of our further hopes and plans:

1. To effect institutional change toward incorporating into the College's historic commitment to children the efforts to provide an equal and appropriate education for all children, including the handicapped, in the least restrictive environment.
2. To enable faculty and staff throughout the College to continue to extend and deepen their professional competencies in order to better contribute directly to this effort in the enactment of their professional roles, establishing an interface between regular and special education both within our institution and in our local and national outreach programs.
3. To define professional roles related to the education of all children as requiring a more direct focus on the concern with: societal attitudes toward the handicapped; opportunities to contribute to the development of attitudinal changes and the establishment of respect for, and accommodation to, individual differences which are essential supports for implementation of the legal mandates protecting the rights of the handicapped.

4. To establish a supportive network within the institution which will enrich and extend the work in each division toward the achievement of the legal mandates protecting the rights of the handicapped.
5. To promote the development and dissemination of written and audio-visual materials which describe and report on the project as a professional training model which incorporates the educational needs of the handicapped within the programs and functions of a multi-purpose institution of higher education.

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Curriculum Revision Revisioned

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ABSTRACT. *Revising a curriculum to better prepare regular teachers to work with handicapped children is not a simplistic activity. A series of guidelines for curriculum revision have evolved at the College at Brockport under the unique condition of the absence of a special education program. The instrument of change used was the Significant Experience Model (SEM). This model and examples of significant experiences during the change process are discussed in the chapter.*

The glamour and intrigue of breaking new horizons, finding self-fulfilling activities, and building new relations have yielded, over a few years, to writing performance objectives, measuring competence, and accountability. Although the latter activities do not preclude the former, it is evident that change processes have focused on the latter. This account of the development of the Dean's Grant Project at State University of New York (SUNY) at Brockport, does not refute performance or accountability but, rather, describes an evolving process that is often more intuitive than analytic and is conceptualized within an already existent set of competencies.

The State University College at Brockport is a liberal arts college with a strong public service orientation. Each year, about 375 regular elementary and secondary teachers complete academic majors and a competency-based certification program. The College does not offer a special education certification program although it offers special physical education and speech therapy programs.

It is important to note that the College at Brockport does not have a special education program. However, at the time of the initial Dean's Grant, the College was not without the resources to meet this new challenge of educating students to teach children with handicapping conditions in the regular classroom. The project staff were confident that a vast literature existed from which to sort and select and that many resources could be found in the community, schools, and agencies, as well as in other disciplines and departments across the campus. Although few in number, the staff was eager to become directly involved in the delivery of services and began by building, whenever possible, upon the experiences and products of other programs.

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During the early months, we acquired and cross-referenced numerous sets of teacher competencies which had been developed as certification requirements in special education programs. Information on similar projects around the country was supplied by the National Support Systems Project, which enabled us to acquire descriptions of programs and materials that had been developed elsewhere. This process saved countless hours of valuable time; staff time and effort could be expended, instead, in the design and delivery of services within our existing undergraduate program. Also, the staff relied heavily on the range of expertise in other disciplines on the campus.

We knew that some changes had to be made in the required sequence of our elementary and secondary teacher-certification programs but we realized that many of the things that might be done by an education department probably could be done by others. From the standpoint of ideology, creating a new domain with a new specialized staff seemed to defeat the concept of integration explicit in the mandates to mainstream children. If the mystique surrounding special education was to be overcome, it was essential that a similar, equally defeating mystique not be created under another rubric. Identifying resources within our own department, the larger university, and the community; helping the staff to do what by training or mandate they were supposed to do; and integrating activities when necessary seemed to be an approach that would minimize the potential for empire building.

What barriers real or imagined existed to thwart attempts to normalize education for handicapped children? Labels, the very tool that educators had used to advocate services for children with exceptional educational needs, had evolved as instruments to exempt some children from the mainstream of educational concern. The labeled children were thought to be so different from other pupils that they could be educated only in special places with special teachers. The project staff looked at special education for some answers but quickly realized that the knowledge, attitudes, and skills of special educators could not be simply transplanted into the regular education curriculum. The regular classroom teacher, typically, has a larger class with a broader spectrum of individual differences, and more complex and higher level expectations are placed on him/her. Regular educators, including college-level teacher educators, had lost the confidence necessary to work through attitudes pertaining to human problems. Children with special needs were viewed as problems — not as growing persons with problems. A barrier had been erected to separate children into "O.K." and "not-O.K." groupings. "Not-O.K.s" were too painful, too discouraging, and too difficult for regular educators to deal with.

Changing teacher attitudes and restoring confidence and rationality to the processes of teaching and learning are probably the first steps to normalizing education for handicapped children. Mandated attempts to change attitudes may well destroy confidence. Confidence probably develops as a result of interactions with and knowledge of individuals who are handicapped. We predict that teacher educators will never fully realize the implications of mainstreaming until handicapped individuals become more prominent in teacher-education programs. When a blind student enrolled in the regular education methods block at the College at Brockport, the staff accepted the challenge of individualizing a program to meet her needs. No book or lecture could approach the quality of this experience.

Guidelines for Curriculum Change

Having achieved a modicum of success and a clearer vision of the road ahead, we feel sufficiently confident to share some of our beliefs about the change process and to illustrate them with our experiences. The following suggestions are offered not as empirically based principles but, rather, as statements of belief. The suggestions may be idiosyncratic to the College at Brockport but they should have some relevance for program developers at other institutions.

GET A LOT OF THINGS HAPPENING

Several years ago, the present project director met with several professional and technical staff members of the Eastman Kodak Company and the City School District, Rochester, to decide on some initial steps in the development of a Multi-Medium System for Educational and Career Planning. An event that was significant for him occurred at that meeting. After a lengthy brainstorming session, the present project director confidently asked for closure: "Now let's decide on a course of action." The systems analyst assigned to the project quickly responded, "We don't do things that way around here; we try all 5,7, or 8 ideas, then we make a decision."

Although there are some basic differences between industry and education, especially in financial resources, one must not be deterred from pursuing alternative routes to the same objective. We were concerned that our planning be done in real-world terms; therefore, we planned and conducted workshops for College faculty and public school personnel, taught classes for faculty members, collected resources, sent information to the entire faculty, started a resource room, increased our own teaching loads, talked to area agencies, involved the faculty in planning, and started a graduate program and an undergraduate specialization. The impact of the Dean's Grant can be understood only by viewing current activities and programs from the perspective of the earlier education curriculum. Prior to the grant, only a single course related to special needs was being offered by the faculty of education, and little attention was paid to the needs of children with handicapping conditions in the many teacher-preparation courses that were offered.

The Dean's Grant funded only the project administrator and a half-time secretary; however, two departments in the faculty of education each identified a staff member with expertise in related academic areas who could be released full time for the project. In addition, the dean's office provided support for a full-time secretary. To avoid being labeled the "mainstreaming" project, the staff chose the title, "The Learning Specialist Project" because it reflected our concern for producing a special type of teacher, one who could understand and apply the principles and practices of teaching and learning with respect and concern for all individuals.

The project is now involved in the many activities graphically portrayed in Figure 1 and described briefly in the following list:

1. All teacher-preparation faculty have now participated in the staff-development activities described in Project 30 materials. (See later subsection, "Find an organizing theme.")

2. A sharing of faculty has taken place. One staff person from Adapted Physical Education and one from Speech Communication were assigned to the teacher-preparation program.

3. New courses have been developed in related disciplines at the request of the project. Speech Communication developed the course, "Introduction to Speech, Language and Learning Disorders" for regular teachers. The Reading staff developed the course, "Teaching Reading to Children with Special Needs."

4. A College-wide workshop, "Mainstreaming: Implications for Teacher Education," was held for interested faculty — about 35 persons representing five different academic departments. Presenters included administrators for area public schools.

5. Project personnel assisted in the placement of students for field experiences in agencies, such as, Convalescent Hospital for Children and the Association for Retarded Citizens.

6. Project personnel assisted and supervised field experiences for the Brockport Cooperative Educational Project (BCEP) in cooperation with the Departments of English and Psychology and the Alternate College (a 3-year time-shortened baccalaureate degree program within the College).

7. A diagnostic resource room was opened in the College's Campus School. This resource room serves children from the Rochester metropoli-

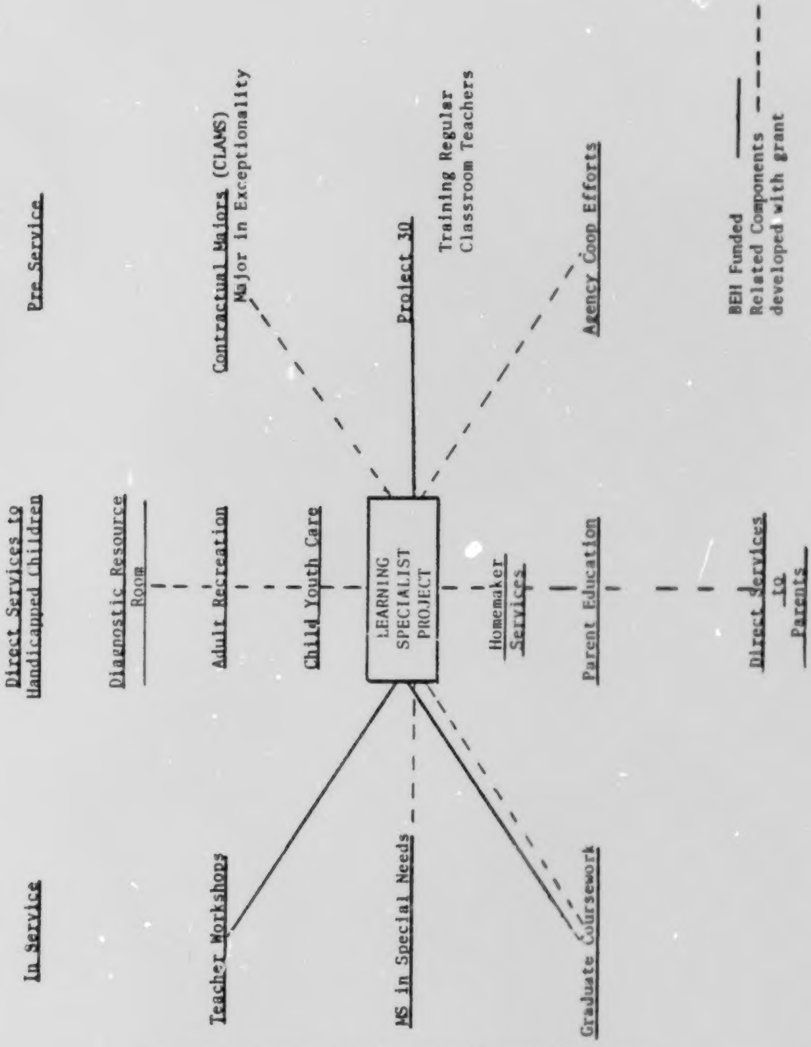
Pre Service
Direct Services to Handicapped Children
In Service
Contractual Majors (CLAMS) Major in Exceptionality
Diagnostic Resource Room
Teacher Workshops
Adult Recreation
Project 30
Training Regular Classroom Teachers
Child Youth Care
LEARNING SPECIALIST PROJECT
MS in Special Needs
Homemaker Services
Agency Coop Efforts
Parent Education
Graduate Coursework
Direct Services to Parents
BEH Funded
Related Components developed with grant

Fig. 1. Activities of the Learning Specialist Project.

tan area and the immediate Brockport area. This component has evolved as an essential part of Project US, a major urban-suburban transfer program conducted in cooperation with the City School District, Rochester.

8. An undergraduate contractual major in exceptionality was developed and implemented with the cooperation of 11 academic departments.

9. A new M.S. in Education option, "Special Needs" education, has been developed and approved. This program is offered with the support of such disciplines as psychology and speech communication, and such professional programs as counseling, social work, and adapted physical education.

10. Teacher workshops on "Teaching Children with Special Needs" have been held.

11. A major institute for school administrators was held.

12. Cooperative efforts are underway with a number of area agencies to increase services for handicapped children in the Brockport area.

13. Project staff have been active in such agencies as ACLD and ARC.

14. Project staff have participated in many community activities on behalf of handicapped children.

15. Community persons have been used as adjunct staff.

PLANNING AND IMPLEMENTATION: YOU CAN'T DO ONE WITHOUT THE OTHER

The Deans' Grants Projects were conceived as *planning* projects. The support for planning has been a welcomed factor in our progress to date. Our experience suggests, however, that successful planning best occurs in conjunction with implementation activities. Planning done in isolation is poor in feedback while planning conducted in the midst of field trials and implementation activities can be rich in experience. Often, in our experience, the plan became clear only as feedback from the field was obtained and evaluated.

We have not yet designed or implemented the entire updated elementary program. The design will be completed during this third year of the project with full implementation scheduled for the following year. Planning will continue during implementation as feedback is gained from the program staff.

DON'T BE TAKEN IN BY FADS

Although the Deans' Grants Projects were aimed directly at teacher preparation for mainstreaming, it was determined that a more substantive approach to meeting existing needs could be developed. Because mainstreaming had become an emotional issue, the staff agreed that individuals on the staff might advocate mainstreaming but the Learning Specialist Project would be involved only in such activities that have a long-range potential. Our commitment to normalized education for handicapped students preceded and was independent of legislative mandates.

The staff had no special insight, only some related experience. The project director, earlier, had directed a "Trainers of Teacher Trainers (TTT)" program, the big change plan, and an experimental program on individualization. Open education had come and gone. Competency-Based Teacher Education (CBTE) was creating a mountain of paperwork and fighting for survival. As part of a teacher-training facility, we assumed that our responsibility was to educate teachers to work with *all* children. We knew that we were not doing so and we sensed that the outcomes we sought were within our grasp but not easily achieved or acquired.

We even wondered about handicapping conditions: When is a handicapping condition a handicap? Some persons who appear handicapped despise being called handicapped. Conversely, many children who did not appear to have handicaps were not making it in the schools. Rather than affiliate with an emotionally charged issue like mainstreaming, we chose to prepare teachers for teaching children with *special needs*. It was felt that the faculty would identify more with the special needs idea than with a more distant and potentially threatening concept dealing solely with observable handicaps. (See the rationale for Project 30.)

FIND OUT WHAT INDIVIDUAL FACULTY MEMBERS CAN DO AND SUPPORT THEM IN IT

Too often, in our attempts to change people, we fail to remember that most persons will support change if they believe that the change is appropriate and they can perceive support for the change. Initially, the staff felt more comfortable in seeking expertise outside of our staff, but, later, recognized that this strategy is an error and began supporting personnel within the department. The assumption that special education had ready solutions that easily could be applied to the problems we faced also was an error. The fact that easy solutions were not available caused us to reexamine internal resources. After investigating the offerings of other departments, it became obvious that there were many related course offerings at the College at Brockport and a high level of interest and support for this new mission. It seemed most appropriate to acknowledge the usefulness of a multidisciplinary approach and to delegate to other disciplines the primary responsibility for the development of new modules and course offerings within their particular areas of expertise.

The role of the project staff evolved as facilitators in the process of bringing together resources already available. Professors in Speech Communication and Special Physical Education developed special resource kits for the faculty and students in regular education. Psychology already had many course offerings related to our efforts. Social Work offered to work with us in any way possible. We also found a wealth of resource personnel in service agencies and school districts. A number of agency personnel have been used as adjunct professors. School people have been very helpful in developing components of the project, by delineating their needs and sharing their perceptions of what can and should be done.

It is only at this point, some two years later, that we are beginning to see clearly the advantages of using the Curriculum and Instruction (C&I) staff. For example, we discovered that a member of our reading staff was interested in and qualified to teach in the learning disabilities area. Several of the Curriculum and Instruction faculty members had related experiences in bilingual education or teaching in a special area (e.g., emotionally disturbed). Our science education faculty was involved in developing psycholinguistic abilities through science. One of our mathematics education professors had just completed a diagnostic mathematics inventory with colleagues at George Peabody College. Another mathematics education professor had been working with special educators in the local intermediate agencies to train teachers to teach mathematics to children with learning problems.

The first course in curriculum modification for secondary students with special needs was taught by a project staff member. Now, a social studies education professor with excellent background is preparing to teach this course. Logistical support was provided for an early childhood education professor who wanted to try his ideas on teaching writing to children with special needs. On several occasions we turned to the English education staff for assistance on, for example, sociolinguistics and language development. An English education professor is now engaged in program development for gifted and talented children with encouragement from the project. Still another has taught sessions on creative writing for children who have academic difficulties or who speak nonstandard English. We are now concerned with using all this talent in the design of an updated certification program.

In an earlier chapter, Ahrends notes that special education and regular education are often physically isolated. To avoid this condition, the Learning Specialist Project staff kept all its offices within the Department of Curriculum and Instruction, the department in which all project staff members hold appointments. They participate regularly in matters of curriculum and governance.

RECOGNIZE READINESS

The individual readiness of the faculty must be viewed carefully. When we forgot to assess readiness and tried to superimpose our beliefs and ideas, we rarely met with success; the attitudes usually ranged from a sense of confusion or being overwhelmed to rejection and alienation. Those College staff members who became involved were ready to modify instructional practice, based on their personal commitments to serving handicapped children. Others felt that something should be done but were unsure of their abilities. A very small minority acknowledged the existent problem but felt that they were not obligated to be involved; they would support the activity of others but not participate actively themselves.

DON'T GET HUNG UP ON OUTCOMES, YET

Competency-Based Teacher Education (CBTE) originated with the licensing and certification bureaucrats who wanted to be sure that teachers had certain skills, not just course credits. There are, however, many ways to accomplish an objective, some more efficient than others, some more effective than others. We were more concerned with the process of things, with attitudes and beliefs, and we knew that changing competency statements did not necessarily imply a corresponding change in behavior.

At Brockport, a four-year program to develop competency-based teacher education had just been completed by the Curriculum and Instruction faculty in cooperation with area policy boards that included professional unions and parents. This approved CBTE program, which is registered with the New York State Education Department, will be in effect for three years. Changing such a program posed a time-consuming effort with questionable benefits unless a "magic set" of competencies could be found and easily added to the existing certification program.

Our problems with the competency approach came from a number of directions. Assuming that special education was the best source of new competencies, the staff obtained lists of competencies that served only to increase the dilemma. On the one hand, we found statements that would most likely increase the stress felt by regular teachers. The typical statements, like that following, related to teaching the more severely handicapped population:

> Ability to analyze and evaluate functional anatomy and kinesiology as they relate to crippled and other health-impaired individuals
>
> a. Neuromuscular development
> b. Consequence of impairment
> c. Body movement and control
> d. Use of body in learning
> e. Prosthesis and orthotics

Students preparing to teach children in an elementary classroom can be expected to experience a great deal of conflict over spending much time in such preparation, especially if they fail to see crippled and other health-impaired children in regular classes.

On the other hand, some statements were almost identical to those originally written for the regular education program. We began to see that the skills most people had identified as important in serving children with special needs were not very different from the skills of any good teacher. The following example is illustrative:

> A demonstrated ability to individualize instruction or ability to gather data about individual learner needs.

These competencies would be appropriate in either regular or special education, but they take on additional meaning for children with special needs. Consider the first: How does one individualize instruction for a child with special needs? Whereas, in regular instruction, one might be inclined to find alternate paths through a curriculum by varying speed, content, or sensory modality, individualization for children with special needs is much more complex. It may require changing expectations, goals, or the ends, as well as the means. We have a classic *means-ends* difference. Special educators, to some extent, are more conditioned to individualizing outcome expectations; regular educators, to a great extent, operate within a given set of norms. Children with special needs often fail to achieve success without some individualizing of the ends or goals of education.

Several years ago, Calvin Taylor, now Professor of Architectural Psychology at the University of Utah, was invited to Brockport to address a symposium on alternative outcomes in education. Taylor feels that school personnel typically spend too much time evaluating the same traditional things. His extensive work on creativity led him to develop the Multiple Talent Approach to teaching and to decry the tendency to focus solely on academics when a multiplicity of other talents can be tapped. In like manner, the project staff attempted to get some significant things going and were less concerned about identifying specific outcomes that everyone could agree on.

We must admit that many things were done because the staff felt that they were right. Time will tell. In the meantime, a lot of people have been touched by this small but active project.

The staff is not giving up on the competencies; we are interested in producing competent professionals. But, for the present, the program is operating at the experiential level. Things are still happening and are more likely to happen through real and vicarious experiences than through an analytic process of deciding which competencies to include in the new program.

FIND AN ORGANIZING THEME

Everyone needs a big idea, something that helps to organize one's existence. Once the staff got underway and began to understand the real thrust of the Deans' Grants Projects, this task became much more focused and manageable.

Something was needed with which teachers and teacher educators could identify. On separate occasions Jerome Rosner (*Perceptual Skills Curriculum*) and Philip McInnis (*Hammondsport Plan*) related their ideas on hard-to-teach pupils. The hard-to-teach terminology made sense to us and led to the formation of the "Project 30" idea. Soon after, the following rationale evolved and, with it, the organizing theme for our project.

> Project 30: a pre-service training project
> to prepare regular classroom teachers to work with
> students experiencing special learning problems.

Rationale

There is a significant population of students (perhaps as many as 30 per cent) who fail to make desired progress in schools for a variety of reasons. These students pose a significant challenge for most teachers and in the past few decades many have been removed from regular classrooms often due to the inability of teacher and student to find a medium for educational success. The trend has been to treat low-achieving children as though some deficit within the individual precludes learning. Many children whom we now term hard-to-teach *have been labeled mentally retarded, emotionally disturbed, learning disabled, etc. Others that are physically impaired are often segregated and reserved for the specialist while others may be intellectually bright yet remain unchallenged in the typical classroom.*

Hard-to-teach children typically exhibit special needs that arise from a wide range of problems or conditions. These special needs may consist of difficulty in mastering basic reading skills or mastering an elementary or advanced mathematics concept. Their problems may involve coming to terms with, and compensating for, a minor or major neurological or other physical impairment. They may embrace such hazards as facing up to and working through disliking another or being disliked or of recognizing and managing a personality conflict with the teacher. Some children's whole lives in school may involve a continuous struggle to manage the anxiety, insecurity, and frustration generated by long-standing physical, personality, or emotional disorders. Whether their problems are simple or complex, short-lived or long-standing, a significant percentage (perhaps 30) pose special problems that make them hard-to-teach. Using the terminology "hard-to-teach" takes the focus away from a deficit that may or may not lie within the individual and makes many of the above problems instructional *problems.*

FIND A MODEL THAT HELPS YOU TO GET STARTED

We were anxious to avoid the terms "mandate" or "change" and much preferred to talk about support. Therefore, the project chose to support the faculty's effort to improve teacher education by providing additional experiences (and competencies) in teaching the hard-to-teach.

The early addition of a required course to the certification program was ruled out; rather, the focus was on experiences that could easily be included within the regular certification program. We then began to conceptualize project development in terms of Regular Teacher Preparation and Specialized Teacher Preparation (Fig. 2). We decided to work at both levels, supporting regular teacher education while developing new skills, experiences, and competencies that, eventually, might become part of an updated program. At a number of meetings the staff offered their services and resources to the faculty and things began to happen.

At the same time, the project opened a resource room for hard-to-teach children in the College's Campus School. This room was to serve

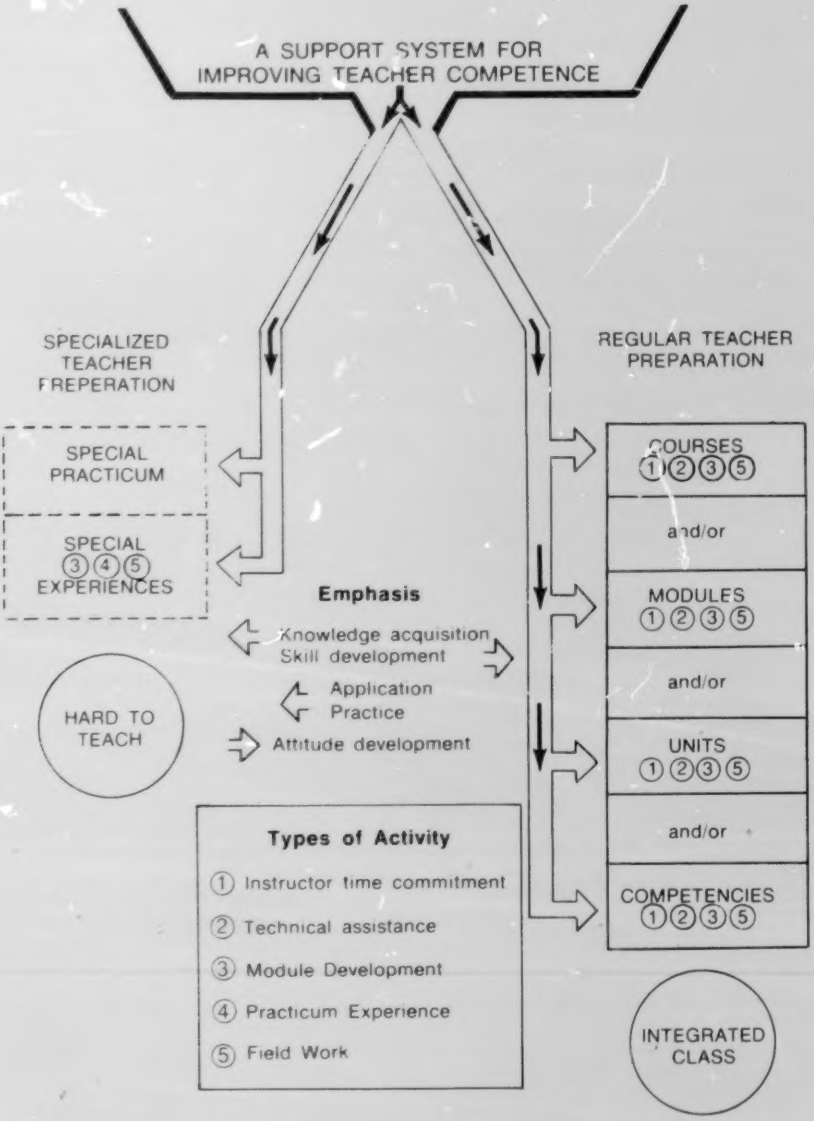
A SUPPORT SYSTEM FOR
IMPROVING TEACHER COMPETENCE
SPECIALIZED
TEACHER
PREPERATION
SPECIAL
PRACTICUM
SPECIAL
③④⑤
EXPERIENCES
HARD TO
TEACH
REGULAR TEACHER
PREPARATION
COURSES
①②③⑤
and/or
MODULES
①②③⑤
and/or
UNITS
①②③⑤
and/or
COMPETENCIES
①②③⑤
INTEGRATED
CLASS
Emphasis
Knowledge acquisition
Skill development
Application
Practice
Attitude development
Types of Activity
① Instructor time commitment
② Technical assistance
③ Module Development
④ Practicum Experience
⑤ Field Work

Fig. 2. Regular teacher preparation and specialized teacher preparation using the Project 30 theme.

children in need of service and teacher-education students in need of a new type of training. Here, we found it was relatively easy to identify specialized experiences in teaching the hard-to-teach. The advantage of this resource room is that all our efforts focus on special needs. We can isolate problems in a way that is often difficult to accomplish in the regular classroom. The competency statements developed in conjunction with the resource room are not given here for reasons of space.

INVOLVE THE STAFF IN IMPLEMENTING THE MODEL

The basic plan, as outlined in Figure 2, was to improve undergraduate teacher preparation in two ways: (a) the regular elementary education faculty was asked to include specific experiences and activities in existing courses, and (b) the Learning Specialist Project staff agreed to design additional experiences or activities that were termed "specialized preparation."

Implementation of this two-fold instructional improvement plan consisted of the following steps:

1. Extension of existing courses to include experiences designed especially for helping teachers to work with students having special learning problems (regular elementary education faculty).
    - a. Methods/content area

      Methods/content area professors were asked to review subject-oriented instructional units, use appropriate activities, evaluate results, and provide feedback to project staff.
    - b. Psychological applications

      Professors in this area were asked to review generic instructional units for use in psychological applications course as in (a.) above.
    - c. Supervision

      Professors supervising student teachers were asked to review generic instructional units for objectives and activities that could be offered in conjunction with student teaching.
2. Development of specialized experiences that will necessitate extra credit and may require special staff.

   Professors in this area were asked to review instructional units for identification and development of those activities that can best be handled initially "in addition to" or "outside of" the regular pre-service program.

Rather than begin *ex nihilo,* and after consultation with members of the faculty, a decision was made to base our instructional development upon some work done over the past two years at a number of universities, especially at the University of Northern Colorado (UNC). Some 24 units prepared by UNC for precisely the same purpose as that outlined in our grant proposal were obtained. The faculty at SUNY, Brockport, reviewed these and other units and selected experiences to be included in the Brockport program. Simultaneously, as mentioned previously, competency statements offered by special education programs were reviewed and compared.

Feedback from all sources seemed to indicate that new competencies were not needed but, rather, that previously identified competencies should be extended to accommodate a broader range of individual differences. It was the *context* and *content* of teacher education that had to be changed. Students should be confronted with the special needs of hard-to-teach pupils and given time and supervision to solve the special problems encountered in this process.

In some instances, we worked directly from competency statements. One professor, for example, took the list of competency statements for the course, "Psychological Applications in Education," and extended each statement by including a requirement that involved children with special needs. Thus, the generic competency statement, "The student will prepare appropriate assessment instruments to assess learning in two different content areas," has been extended to include an experience in preparing assessment approaches for children in the regular classroom who have mildly handicapping conditions. Students demonstrate their competency by devising alternative strategies for testing.

For the most part, however, we sought to plug the gaps in the existent undergraduate program by prescribing significant experiences to be included in the updated program.

IDENTIFY THE SIGNIFICANT EXPERIENCES THAT GIVE LIFE TO THE PROGRAM

The faculty approached the task for curriculum revision in different ways; in all cases, however, they specified new experiences related to children with special needs. Therefore, we have identified the *significant experience* as our instrument of curriculum change. With this vehicle it has been possible to broaden both the content and context of teacher education without necessarily changing specific performance requirements. These significant experiences are both vicarious and real and occur throughout the pre-service program. We have termed this part of the plan, the Significant Experience Model (SEM).

The specific experiences to be included in a course are left to the discretion of individual professors. The experiences were selected because (a) they were possible to incorporate, (b) they were received with interest and enthusiasm by instructors and students, and (c) they filled a void that had existed until their inclusion. The following examples are given not to indicate the scope and sequence of a desired program but, rather, to clarify the types of experiences that ultimately will be defined and redefined in the evolving pre-service program.

Examples of significant experiences included within the updated program

1. In the course, The Exceptional Individual: Implications for Life Adjustment and Learning:
   (An in-home simulation.) Students are given simulation packages that require 24 hours of "handicapped" involvement in their present living situations. They are required to maintain a log while experiencing situations such as the following: physically handicapping conditions that limit mobility in dressing and eating; baking a cake blindfolded; and watching TV without sound.
2. In the "methods block" program:
   An orientation and overview of contemporary legislation concerning education of the handicapped. Three modules are designed in self-study format. They are totally self-contained and self-explanatory. The modules are based upon the following media packages:

Source	**Title**	**Time**
Teacher Training Program	Mainstreaming: Challenge for the Seventies (filmstrip & tape)	18 min.
Council for Exceptional Children and Bureau of Education for the Handicapped, U.S.O.E.	Introducing P.L. 94-142 (filmstrip & tape)	23 min.
Council for Exceptional Children and Bureau of Education for the Handicapped, U.S.O.E.	Complying with P.L. 94-142	23 min.

Follow-up activities include a seminar that also provides the opportunity to introduce a number of the resources available to support children with handicapping conditions.

3. In the course, *Teaching Science in the Elementary School:*
   When using contemporary programs, such as the Elementary Science Study (E.S.S.), students must determine the types of sensory processing needed for the discovery of variables related to concept formation as stated in the unit activities. For example, when using Batteries and Bulbs, determine what modification would be necessary to allow the partially sighted or blind child to discover and encode findings. Determine what modifications are necessary for the hearing-impaired child.
4. In the course, *Teaching Mathematics in the Elementary School:*
   When using concrete manipulative materials, such as Pattern Blocks and tangrams, design a sequence to teach a concept (e.g., part to whole relations). Then design a sequence or series of activities for the child with a symbolic encoding and decoding disability. For example, how would you teach the concept of square measures to a child with visual-perception problems?

5. In the course, *Teaching Social Studies:*

   Two filmstrips from the Approaches to Mainstreaming[4] series are used: *Characteristics of Children with Special Needs* and *Individual Differences.* Follow-up activities require students to identify, with the help of the sponsoring practicum teacher, one child in the classroom who has special educational needs. Using an educational set of objectives that deals with concept development, the students design alternative methods to help the identified child to attain those objectives.

6. In the course, *Teaching Language Arts:*

   While working on the development of handwriting skills, students view three multimedia programs from Teaching Resources on gross motor abilities, eye-hand coordination, and pencil and paper writing skills. The follow-up activities include discussions of dysgraphia as a function of organic impairment or developmental lag, and of the concerns around the practice of labeling the child learning disabled. Compensatory and developmental teaching approaches are studied.

7. In the *reading courses:*

   More time and emphasis is spent on informal and formal diagnostic techniques to determine learner style and appropriateness of a given method for instruction. The use of psycholinguistic measurement as well as traditional reading tests is emphasized as is the prevention of reading failure through ongoing appraisal of readiness and subskill mastery.

8. In the *practicum:*

   Prior to increased teaching responsibilities, students observe, identify, and differentiate among various maturity levels and special needs in the classroom. These specific differences are discussed with supervising teachers.

Students observe behavior and write a case study or in-depth profile of a special needs child in the regular classroom setting. As part of the process, the student must meet with support personnel to discuss special provisions being made or considered for this child.

The student must discuss with the supervising teacher the present districtwide programs for dealing with children who have special needs, including the identification of present support staff within the district and within each building. The student also describes how individual staff members are attempting to provide appropriate learning activities for individual or groups of children with handicapping conditions in each building.

The student observes and assists the teacher of a special class over a period of several days.

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[4] Available from Teaching Resources Corporation.

DESIGN ADDITIONS OR ALTERNATIVES FOR THE HIGHLY MOTIVATED

Our experience indicates that many students want to go beyond the usual requirements; they show a great deal of interest in teaching children with special needs. We have developed several vehicles for those persons. Students seeking a single course generally take one of the following: "Teaching Children with Special Needs" or "Introduction to Learning Problems."

Students who want a sequence of practicum-type experiences with children who are hard-to-teach can sign up for the following series of courses in conjunction with the Campus School Resource Room: "Introduction to Learning Problems"; "Diagnostic Prescriptive Teaching"; and "Seminar: Special Needs"; or "Brockport Cooperative Educational Program" (tutorial).

Those students who have a commitment to the special child frequently do not find an academic major that meets their needs. Therefore, a program has been formalized whereby the student can design his own major in exceptionality. This contractual major is composed primarily of liberal arts courses generally representing many disciplines. A typical Contractual Liberal Arts Major (CLAM) might include the following courses:

PSH 425	*Human Learning and Memory*
PSH 483	*Behavi*[illegible]*ification*
PSH 386	*Psycho*[illegible] *Exceptionality*
PSH 334	*Psychopathology*
HLS 312	*Mental and Emotional Health*
SOC 361	*Sex, Marriage and the Family*
SOC 371	*Crime, Deviance and Social Control*
MUC 478	*Music and Special Education*
EDI 413	*Introduction to Learning Problems*
SPH 283	*Introduction to Communication Disorders*

This program has proved to be popular and is continually revised to meet the individual needs or interests of the college student.

Summary

It certainly would be advantageous to see clearly enough to design a program and then implement it. Most of us, however, are not so fortunate. For many, structure emerges from experiences. The emerging Brockport plan is summarized in Figure 3. Curriculum revision necessary to prepare teachers for work in an integrated setting cannot be undertaken lightly. All persons on the staff must contribute or the program will not develop. Change must take place in persons as well as in curriculum.

The Learning Specialist Project staff discovered that most regular education programs included performance objectives (competencies) that

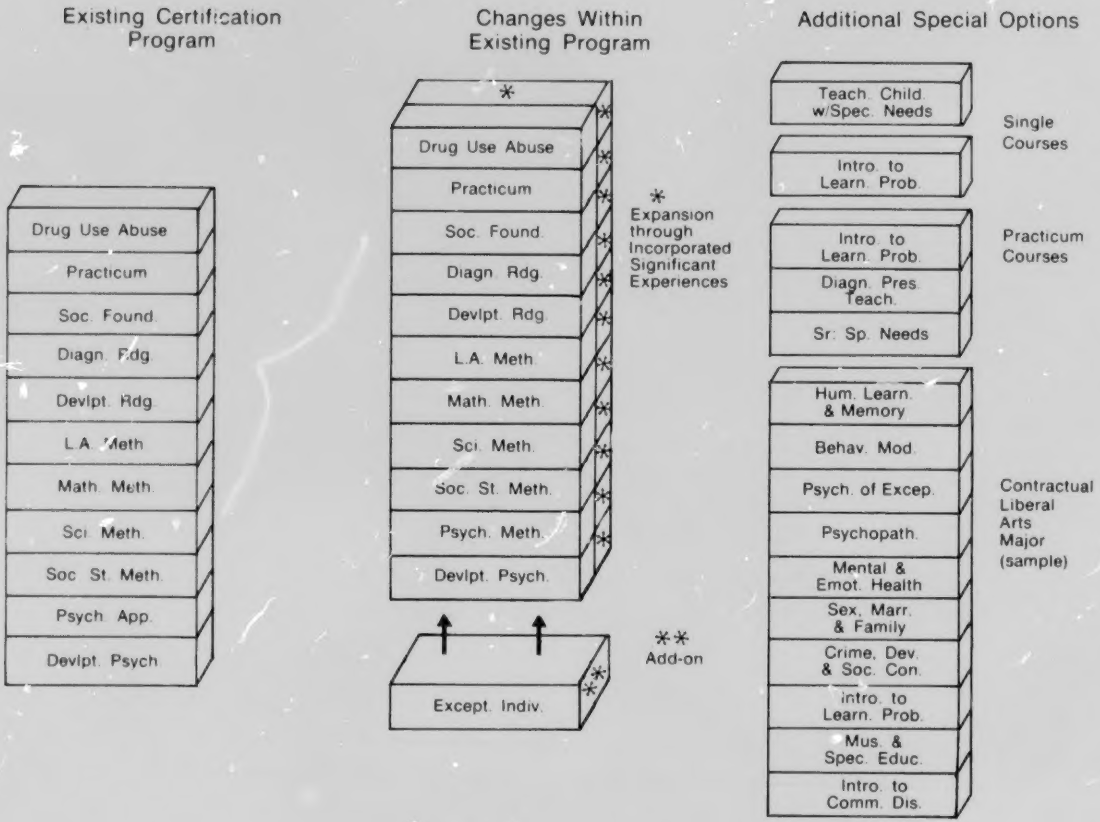
Existing Certification Program
Drug Use Abuse
Practicum
Soc. Found.
Diagn. Rdg.
Devlpt. Rdg.
L.A. Meth
Math. Meth.
Sci. Meth.
Soc. St. Meth.
Psych. App.
Devlpt. Psych.
Changes Within Existing Program
*
Drug Use Abuse
Practicum
Soc. Found.
Diagn. Rdg.
Devlpt. Rdg.
L.A. Meth.
Math. Meth.
Sci. Meth.
Soc. St. Meth.
Psych. Meth.
Devlpt. Psych.
Except. Indiv.
* Expansion through Incorporated Significant Experiences
** Add-on
Additional Special Options
Teach. Child. w/Spec. Needs
Intro. to Learn. Prob.
Single Courses
Intro. to Learn. Prob.
Diagn. Pres. Teach.
Sr. Sp. Needs
Practicum Courses
Hum. Learn. & Memory
Behav. Mod.
Psych. of Excep.
Psychopath.
Mental & Emot. Health
Sex, Marr. & Family
Crime, Dev. & Soc. Con.
Intro. to Learn. Prob.
Mus. & Spec. Educ.
Intro. to Comm. Dis.
Contractual Liberal Arts Major (sample)

Fig. 3. Brockport elementary certification program, showing program changes and options.

were very comprehensive in nature and covered most of what seemed to be needed in an exemplary program. In most cases, however, these objectives were met in a setting or context that failed to include children with handicapping conditions.

By using the instrument of change (product), which we have termed the significant experience, it is possible to broaden the content and context of teacher education without necessarily changing specific performance requirements. These significant experiences are both vicarious and real and occur throughout the pre-service program. This part of the plan has been termed the "Significant Experience Model (SEM)."

The process of change was as follows:

1. Involve the faculty in designing and/or identifying those experiences that are easily integrated into existing courses.
2. Assist the faculty in identifying their own areas of existing expertise.
3. Design specialized experiences that can be incorporated into existing classes or offered as electives.
4. Evaluate the program, including the contribution of (1.) and (3.) above.
5. Add on new courses and/or curriculum that cannot be incorporated into existing programs.

In Figure 3, we have illustrated how the process translated into changes in course structure at Brockport. The figure shows (a) the existing certification programs, (b) the updated certification program now under development, and (c) additional options available to the pre-service regular education teacher with a special interest in children with handicapping conditions. Note that one course has been proposed for addition to the certification program. The request for an additional course came from the faculty, not the project staff, and the course will be added after some change has occurred in each of the existing courses.

Modular Instructional System Development

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ABSTRACT. *The University of Texas at Austin and the University of Florida have developed separate modular instructional systems for preparing general educational personnel to work with handicapped children in regular classrooms. The Deans' Grants Projects at the two institutions differ in emphases. At the University of Texas at Austin, the focus is on training teachers to meet the needs of children in mainstream settings through pre-service and inservice training. At the University of Florida, the focus is on the pre-service and inservice preparation of educational personnel, including teachers, counselors, and administrators. In this paper, competencies for the various educational personnel are delineated and the process of module use is outlined. Concluding remarks address both the advantages and limitations of modular instruction and provide suggestions for avoiding key problems.*

Traditionally, college and university training programs for general educational personnel have failed to recognize the necessity of preparing educators to meet the needs of handicapped students. As general educators are required to assume responsibility for serving children with a broader range of individual differences, teacher-preparation programs have found it necessary to respond to this need. New relations between regular and special educators must develop as new partnerships emerge. All educators will need (a) to understand how a handicap affects a student's ability to learn; (b) to achieve competence in recognizing problems and designing appropriate learning alternatives; (c) to develop an understanding of the mainstreaming process; (d) to achieve competence in interacting with parents of both handicapped and nonhandicapped students; (e) to achieve competence in facilitating peer interactions and building self-concept. If mainstreaming is to be successful, the majority of the 2 million teachers, counselors, administrators, and instructional aides currently in the schools, as well as the students presently enrolled in personnel-preparation programs, must be trained to assume new roles. A number of models or systems designed to assist the general educator in gaining these skills have been advanced. The models described in this chapter are based upon the belief that competency-based teacher education programs can provide an avenue for infusing skills related to the education of exceptional children into existing preparation programs.

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[2] Assistant Professor. Formerly, Assistant Professor, University of Florida.

In both models, the learning module is seen as the specific type of curriculum package for providing instruction to general educators in the area of mainstreaming. The learning module method of instruction provides a planned series of learning alternatives to develop skill in the demonstration of a specific performance objective. The modular approach allows for flexibility in learner rate of progress, learning style, and instructional format. The learner can identify personal strengths and weaknesses and recycle through learning activities when objectives are not met. In addition, the learning module can be easily integrated into an existing preparation program.

Learning modules usually contain six major parts: objectives, pretest, rationale, learning alternatives, posttest, and resources. The behavior or performance toward which the learner works is described in the objective. The pretest is an aid to both the instructor and learner for determining the learner's entry level of competence or if it is necessary for him/her to proceed through the module. It also provides a basis for comparing entry-level and exit-level skills. The third major part of a learning module, the rationale section, is used to establish the value of attaining the skills contained within the package. The learning alternatives are the activities which have been designed to help the learner to accomplish the objectives of the module. Learning alternatives provide the learner with options for attaining skills, thus allowing progress at one's own rate and in one's own style. The posttest is designed to measure the learner's achievement of the objectives contained within the module. If the learner fails to perform at the criterion level, the learning alternative may be repeated or a different alternative selected. The resource section is the sixth and final part of the learning module. It lists all the needed materials, media, and readings. Other items (e.g., flow charts, time requirements, and evaluation forms) also may be included in the resource section.

The University of Texas at Austin Model

The College of Education at The University of Texas at Austin is organized into five departments: Curriculum and Instruction, Educational Administration, Educational Psychology, Physical Education and Health, and Special Education. There are approximately 174 faculty members. The Dean's Grant Project is directed by Dean Lorrin Kennamer.

Project PREM (Preparing Regular Educators for Mainstreaming) was designed to develop a competency-guided program to prepare regular educators at the pre-service and inservice levels to meet the needs of handicapped children within regular classrooms. Having recognized the interdependencies among the groups that exert influence on both preparation programs and successful mainstreaming, Project PREM included regular and special education inservice teachers, pre-service teachers, school administrators, teacher-education faculty, and parents of handicapped children in the planning, implementation, and evaluation phases of the training experiences.

DELINEATION OF COMPETENCIES

Major competency areas were identified during the initial year of the project by using contributions from the various populations involved in the education of handicapped children. Local efforts to survey competency needs were initiated by a needs-assessment conference which was called to arrive at a general consensus on the competencies needed by educational personnel in Texas from the vantage points of pre-service and inservice teachers, parents of handicapped children, local school district administrative personnel, university faculty members, and representatives of the State Education Agency. Local needs were then compared with those competencies that are delineated in the current literature on mainstreaming and became the basis of a more formal instrument which was used to survey competency needs on a broader scale.

The basic content areas of the survey included attitudinal change, knowledge of the mainstreaming process, skills needed to facilitate the process, and strategies for the implementation of skills. The populations surveyed included pre-service teachers, inservice teachers, administrators, supervisors, counselors, and parents of handicapped children.

The information compiled from these surveys further substantiated and provided focus for the competencies generated at the earlier needs assessment conference. Using these local needs as well as those delineated in the literature, competency statements were developed and grouped into cluster areas.

A series of 10 training modules was subsequently devised to provide a basic orientation to mainstreaming and to develop the general skills and competencies of elementary and secondary pre-service and inservice educators. Specifically, the modules were designed to deal with attitudes, the mainstreaming process, educational implications of various handicapping conditions, individualized instruction, materials development and evaluation, behavior management, career education, informal and formal assessment techniques, integration and self-concept development, and communication skills. The general educator who progresses through these modules is judged to have a better understanding of his/her role in the mainstreaming process and, therefore, will facilitate the successful integration of handicapped children into regular classrooms. A brief description of the goals and objectives of each module follows:

LETS 001.00 LET'S TRY ON A LEARNING PROBLEM

GOAL: To develop an accepting and understanding attitude toward the handicapped student in the regular classroom.

OBJECTIVES:

1. To state his/her values in relation to mainstreaming.
2. To experience the sensations of failure and of being different.
3. To identify the personality and physical differences which tend to isolate people.
4. To identify positive characteristics of student's behavior.

LETS 002.00 LET'S GET IT ON: MAINSTREAMING AND PLAN A

GOAL: To develop an understanding of the concepts, rationale, interests, and concerns for mainstreaming and local, state, and federal legislation.

OBJECTIVES:

1. To prepare a definition of mainstreaming.
2. To compare and contrast the major factors of mainstream education with those of traditional special education.
3. To develop an understanding of the legislative components of P.L. 94-142, Section 504 of the Rehabilitation Act, and the State Comprehensive Special Education Plan.
4. To understand the roles of the supportive personnel.

LETS 003.00 LET'S MEET WHO WE ARE TALKING ABOUT: OVERVIEW OF HANDICAPPING CONDITIONS

GOAL: To develop an understanding of impairments that could interfere with some aspects of learning and of the techniques for creating an environment to facilitate successful learning experiences for all students.

OBJECTIVES:

1. To demonstrate an understanding of special education terminology in relation to instructional procedures.
2. To identify the strengths of students with impairments.
3. To identify behavioral commonalities among handicapped and nonhandicapped students.
4. To identify factors within the student and the environment that might interfere with the successful completion of a learning task.
5. To identify four journal articles that have implications for developing and maintaining the successful learning environment in the regular classroom.

LETS 004.00 LET'S INDIVIDUALIZE: ALTERNATIVE INSTRUCTIONAL STRATEGIES

GOAL: To develop an understanding of the basic concepts for individualizing instruction.

OBJECTIVES:

1. To determine if a class is individualized and to identify factors that may contribute to or prevent individualized instruction.
2. To identify basic components of alternative instructional strategies.
3. To identify and assess learning styles that relate to the different sensory modalities, strengths, and weaknesses.
4. To develop a method, lesson, or strategy for expanding the learning environment beyond the classroom.

LETS 005.00 LET'S HURRY UP AND LISTEN

GOAL: To develop strategies for facilitating interaction among all persons involved in the mainstreaming of exceptional students.

OBJECTIVES:

1. To identify "roadblocks" and "freeways" to communication.
2. To use communication skills to initiate interaction between the regular classroom teacher and Plan A personnel.
3. To identify service areas outside the school that can aid in meeting the needs of handicapped students.
4. To identify methods of utilizing various instructional/personnel arrangements in a mainstream program.
5. To identify methods of initiating teacher-parent interaction.
6. To identify four topics that could be used to enhance community involvement in the educational process.
7. To identify strategies that will facilitate communication between regular and special educators.

LETS 006.00 LET'S GET IT TOGETHER: INTEGRATION

GOAL: To develop skills to facilitate the successful social and academic integration of the handicapped student into the regular classroom.

OBJECTIVES:

1. To identify possible underlying reasons for rejection/isolation in the classroom.
2. To identify three methods for building self-concept.
3. To demonstrate skill in using and interpreting classroom interaction information.
4. To develop and implement a plan for facilitating the integration of a mainstreamed student.

LETS 007.00 LET'S SPARE THE ROD: CLASSROOM MANAGEMENT

GOAL: To develop strategies for managing student behavior in order to facilitate learning.

OBJECTIVES:

1. To demonstrate understanding of terminology associated with behavior management methods/theories.

2. To demonstrate the ability to initiate preventive measures for behavior problems.
3. To demonstrate the ability to cope with inappropriate behavior by describing feasible solutions for given situations.

LETS 008.00 LET'S LOOK AND SEE: TESTS AND OBSERVATION

GOAL: To develop an understanding of the participant's role in the evaluation process, appraisal techniques used in the assessment of exceptional students, and the utilization of evaluation data to make educational decisions for special students.

OBJECTIVES:

1. To identify areas of consideration used to assess student strengths and weaknesses.
2. To identify types of available evaluation data on handicapped students.
3. To analyze information gathered formally and/or informally in the regular classroom.
4. To identify the teacher's role in the utilization of evaluation data to make educational decisions for the handicapped student.

LETS 009.00 LET'S MATERIALIZE

GOAL: To develop skill in adapting, preparing, and using appropriate materials and media for the instruction of handicapped students in the regular classroom.

OBJECTIVES:

1. To preview and evaluate the usefulness of multimedia kits of instructional materials for the integration of handicapped learners into the regular classroom.
2. To design an individualized learning approach for mastery of a skill or concept in the trainee's area of concentration.
3. To construct an individual lesson plan for a given student consisting of five consecutive 10-15 minute lessons.
4. To identify teaching and learning styles that may be used as resources in planning instructional strategies.

LETS 010.00 LET'S LOOK TO THEIR FUTURE: CAREER EDUCATION

GOAL: To develop a diversity of techniques, processes, and materials for meeting the needs of the handicapped student in a career-education program.

OBJECTIVES:

1. To identify skills for successful introduction into the world of work.
2. To design a lesson plan for the utilization of a vocationally oriented resource.
3. To identify potential job placement for a trainee within his/her particular area of interest.

Delivery of the basic modular training program has occurred through three different formats. (a) The project staff has interacted directly with students by conducting and evaluating workshops based on the simulations and group activities contained within the modules. (b) The staff provides consultation services and resources to instructors and staff-development personnel. (c) Students cycle through the modules individually in the Educator's Lab. By providing these three options for the inclusion of the modular components, the staff has allowed for differences in teaching style and avoided some of the usual problems inherent in programs creating change.

The modules developed by Project PREM have incorporated readings, films, filmstrips, video tapes, audio tapes, and simulations into the learning options. Commercially prepared materials were reviewed for possible adaptation and/or inclusion and new training materials have been developed by the Project PREM staff as needs are identified. Additional sources of information are provided within each module for students who wish to pursue a particular subject in greater depth. (For a list of the major resources, see Appendix C, "Resources for Competency-Based Modules that Prepare Pre-Service Teachers for Mainstreaming.")

The Project PREM modules include self-assessment activities and pre-post tests to measure student achievement. The student may select from such activities as volunteering in a school, interviewing teachers, role playing, participating in group discussions, and answering discussion questions. These activities are monitored by the project staff and the regular course instructor.

The University of Florida Model

The University of Florida's College of Education is organized into six major departments: Administration, Counselor Education, Curriculum and Instruction (General Teacher Education and Instructional Leadership and Support), Foundations, Special Education, and Subject Specialization Teacher Education. Total faculty membership is approximately 130. The Dean's Grant Project is directed by Dean Bert Sharp.

The modules developed at the University of Florida were designed for use by (a) undergraduate and graduate elementary and secondary education students, (b) graduate counselor education students, and (c) graduate educational administration students. The delineation of the modules and their components follow:

Module 1: General Information

- 1.1 Mainstreaming: An Introduction to the Concept
- 1.2 Mainstreaming: The Rationale
- 1.3 Mainstreaming: A Continuum of Services
- 1.4 Resources: Community
- 1.5 Resources: School Personnel

Module 2: Characteristics of Exceptional Students

- 2.1 The Intellectually Different
  - 2.1.1 Mentally Retarded Children

- 2.1.2 Children with Learning Disabilities
- 2.1.3 Gifted and Creative Children

2.2 The Psychosocially Different
- 2.2.1 Emotionally Disturbed Children
- 2.2.2 Socially Maladjusted Children

2.3 The Physically Different
- 2.3.1 Visually Impaired Children
- 2.3.2 Hearing Impaired Children
- 2.3.3 Orthopedically Handicapped Children
- 2.3.4 Multiply Handicapped Children

2.4 Speech and Language Impaired Children

Module 3: For the Teacher
- 3.1 Fundamental Instructional Practices
- 3.2 Instructional Materials
- 3.3 Informal Diagnosis/Individualized Instruction
- 3.4 Behavior Modification/Precision Teaching
- 3.5 Methods of Educating the Physically Different
- 3.6 Consulting with Parents
- 3.7 Grading/Reporting

Module 4: For the Counselor
- 4.1 Support for the Child
- 4.2 Support for the Teacher
  - 4.2.1 Behavior Modification
  - 4.2.2 Individualizing Instruction
  - 4.2.3 Providing Emotional and Practical Support
- 4.3 Consultation
- 4.4 Interpersonal Relations and Communication
- 4.5 Crisis Intervention
- 4.6 Psychological Education
- 4.7 The Counselor as Change Agent

Module 5: For the Administrator
- 5.1 Mainstreaming: What the Law Says
- 5.2 Implications of Laws Related to Mainstreaming and the Rationale
- 5.3 Alternatives to Special Class Placement
- 5.4 Supporting the Alternatives
- 5.5 The Principal as Change Agent

Because of the relevance of certain basic information to all fields of education, all students, regardless of their majors, complete Modules 1 and 2. After completion of these tasks, the students then move on to tasks in the module related to their specific fields.

In order to increase flexibility, the modules are organized so that students can spend 3, 5, 10, or 20 hours (more if desired) in completing the assignments. The three- and five-hour modules are available for incorporation into relevant courses and have been easily organized into "packets" for placement in the College Library. Interested faculty can assign the modules to students, and then can follow the readings with class discussion. Special education faculty or doctoral students are available for follow-up discussions when requested.

Students completing the requirements of the 10- or 20-hour modules can elect to complete the assignments for credit (offered as independent study). In such instances, students are supervised by the Dean's Grant Project director. Mastery evaluations are included at the end of each component so that the students can monitor their own progress.

The modules are composed primarily of readings from recent journals and publications (see Appendix B). The longer modules not only extend the reading requirements of the shorter modules but, also, include a limited amount of field work. The teachers are required to observe in a special education resource room and to interview the special teacher; the counselors are required to attend a special education "staffing" and to interview a school counselor on the subject of mainstreaming; and the administrators are required to observe in a special education class and to interview the principal of a school where mainstreaming is taking place. These activities are supervised by the Dean's Grant Project director.

In addition to the actual modules, other materials related to each component, but not included in the components, have been organized and filed to coincide with the module components. Thus, any student who desires to pursue a subject in greater depth is able to do so with relative ease.

COMPETENCIES

A search of the literature revealed very little information relative to the competencies needed by elementary school counselors to facilitate mainstreaming. Therefore, the Dean's Grant Project staff developed a tentative list of competencies to direct the design of modules. The final list of these competencies follows:

1.0 School Law/State Regulations

The elementary school counselor:

- 1.1 has knowledge of federal, state, and district regulations relating to exceptional student programs;
- 1.2 has knowledge of federal, state, and district regulations relating to the identification of exceptional students;
- 1.3 has knowledge of federal, state, and district regulations relating to the placement of exceptional students in the least restrictive environment;
- 1.4 has knowledge of due process as it relates to exceptional students;
- 1.5 has knowledge of his/her responsibility relating to confidentiality of exceptional students' school records;
- 1.6 has knowledge of the principles and practice of nondiscriminatory testing.

2.0 Identification and Placement of Exceptional Students

The elementary school counselor:

- 2.1 has knowledge of the characteristics of exceptional students;
- 2.2 has knowledge of the definition of each area of exceptionality accepted for use inhis/her district;
- 2.3 can initiate and/or implement the use of appropriate instruments for screening for exceptional students;
- 2.4 has knowledge of, and can implement the referral process accepted for use in his/her district;
- 2.5 knows the procedure recommended in his/her district for the placement (staffing) of referred students;
- 2.6 is aware of and can assemble all assessment data pertinent to the placement (staffing) decisions about referred students;
- 2.7 can interpret the assessment data for members of the placement committee, including parents;
- 2.8 has knowledge of the continuum of services available to exceptional students and the least restrictive environment appropriate for placement of individual students.

3.0 Organization and Delivery of Services

The elementary school counselor:

- 3.1 can provide assistance in the design of individualized education programs, as mandated by Public Law 94-142;
- 3.2 can provide assistance in the implementation of individualized education programs, as mandated by Public Law 94-142;
- 3.3 can facilitate formal and informal communication between school personnel responsible for mainstreamed exceptional students;
- 3.4 can provide teachers with affective intervention skills for interaction with exceptional students;
- 3.5 can use appropriate counseling techniques with individuals and groups of exceptional students in a continuum of educational settings;
- 3.6 can use appropriate counseling techniques with parents and families of exceptional students;
- 3.7 can serve as a referral source to community agencies that provide services to exceptional students and their families;
- 3.8 has knowledge of and can implement the district recommended procedures for review, re-assignment, and dismissal of exceptional students.

A survey was undertaken to determine the validity of the competencies. Responses from 70 personnel in Deans' Grants Projects and 65 counselor education personnel from colleges without such projects supported the validity of the selected competencies. The modal response was that mastery was "absolutely essential for success" on all but four competencies (1.1, 1.2, 3.1, and 3.2). The modal response on these four was that mastery of the competency was needed at a "high skill level."

The competencies used to guide the development of the administrators' module were developed by faculty at the University of North Florida (Healy, Sedlack, & Coarsey, 1976). They are general competencies needed by building-level administrators responsible for special education programs in their schools.

Special Education Competencies for Building-Level Administrators

1.0 School Law/State Regulations

The principal:

1.1 understands school law as it relates to locating, identifying, and evaluating exceptional students;
1.2 has knowledge of due process as it relates to exceptional student programs;
1.3 understands the relation of state law to the financing of programs for exceptional students;
1.4 understands how state laws relate to exceptional student programs;
1.5 understands federal, state, and county regulations as they relate to exceptional students;
1.6 knows his/her responsibilities relating to the use of confidential information contained in school records;
1.7 knows the state funding regulations for services for exceptional students;
1.8 understands state law as it relates to administrative services;
1.9 understands the state constitution in terms of the "right to an education" and its relation to special education programs in the State of Florida;
1.10 understands the justification and responsibility for the Compulsory State Attendance Law.

2.0 Identification of Exceptional Students

The principal:

2.1 has knowledge of the definition of each area of exceptionality;
2.2 understands the procedures involved in a referral;
2.3 understands the nature of the screening process to detect exceptional students;
2.4 is aware of the proper procedures to be followed in the dismissal and re-assignment processes;
2.5 understands the procedures recommended in his/her district for staffing.

3.0 Staffing for Exceptional Students

The principal:

3.1 is aware of or knows the least restrictive environment that can help the exceptional student;
3.2 knows the requirements involved in providing an individual educational plan;
3.3 understands the interpretation of evaluations given to exceptional students;
3.4 is aware of the responsibilities of the school board as they relate to exceptional student programs;
3.5 is aware of the role and responsibility of the district administrator for exceptional education programs;

3.6 has knowledge of the philosophies of exceptional education for the various programs assigned to his/her building;
3.7 has over-all knowledge of the principles and practices of non-discriminatory testing;
3.8 has the means by which to be informed of up-to-date services for exceptional students.

These two lists of competencies also were used to determine in which courses already offered at the University of Florida the students were attaining mastery of specific competencies. Those competencies that were being neglected were emphasized in the administration modules, as well as in a course specifically designed for graduate students in fields other than special education.

Conclusions

One of the obvious benefits of modular instruction is its inherent flexibility: Modules can be designed to serve as resources, along a continuum from supplementary to primary. But the ultimate beneficiaries of the approach are the students who use the modules. The evaluations from the students who participated in both modular instruction programs were so positive that little doubt remains of the benefits of this approach. Faculty response was also positive. The reason is that faculty members who were unfamiliar with mainstreaming and special education were able to incorporate the topics into their courses with a greater degree of confidence. The modular approach allows both students and instructors to progress within their unique styles. Differences in learning style as well as in teaching style can be accommodated. The learner progresses at his/her own rate and benefits from having identified personal strengths and weaknesses. Learning modules are not the panacea for all problems in teacher preparation but they have demonstrated that their use can result in increased skill development.

IMPLICATIONS

Many problems remain in the development of modular instructional systems to meet the present and future needs of pre-service and inservice educators. Although some states are beginning to delineate certification requirements in terms of competencies, many rely on the completion of a designated number of hours of coursework. Modular components of programs preparing regular educators must be developed in conjunction with the departments and faculty members who will use them eventually. Still another problem relates to those individuals who may be resistant to changing their teaching styles or course contents to facilitate better programing for the preparation of regular educators to work with handicapped children.

Other problems in a modular instructional system center on student orientation. The learner from a traditional lecture-type background may find the shift to self-selected activities difficult. For the student with this problem, the learning alternatives do not provide options; they are requirements, rather. Another problem which the learner may face is that of scheduling. Although modules may vary in the amount of time required for mastery, the learner may "put off" self-instruction. Consistent monitoring of student progress is a necessary component of the modular instructional system. A third concern is the learner's need to interact with others to confirm knowledge and to provide stimulation for expanding the ideas presented in the module. This component can be made an integral part of the module, such as the self-assessment, or it can be included within the monitoring system.

The modular instructional systems developed at The University of Texas at Austin and the University of Florida have had an impact upon the preparation programs for general educational personnel. Modular instruction has provided a means through which general educators can gain competence in working with handicapped children in regular school settings. In addition, this approach has enabled faculty to incorporate an exceptional child component into existing coursework with a high degree of success. It also provides the learner with an opportunity to experience a more individualized approach to personnel preparation. Our experience permits us to conclude that colleges and universities can institute a modular instructional program to assist educators to develop the competencies needed to deal effectively with handicapped children within the regular classroom.

Reference

Healy, T., Sedlack, J.E., & Coarsey, M. Special education administration: Competency listing and resource guide for building level administrators. Tallahassee, Fla.: Florida Department of Education, 1976.

"I'm A Lot Like You" — Training for Mainstreaming through a Video Tape/Incorporated Activity Program

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ABSTRACT. *The instructional materials developed through this Dean's Grant Project consist of video tapes and accompanying activities incorporated into training modules. Neither the tapes nor activities can be used in isolation if the full impact of the program is to be achieved. Through this project, understanding, assessment, and programing for individual differences and the mainstreaming process are explored. The project was developed for both pre-service and inservice training. By dividing the project into two levels (elementary and secondary), attitudes, concepts, skills, and techniques are differentiated.*

Project Overview

The Dean's Grant Project at the University of Wisconsin-Milwaukee was conceptualized in Fall 1974 through the efforts of both the Departments of Exceptional Education and Curriculum and Instruction. It was developed for use in preparing pre-service regular education teachers to work with handicapped students in their classrooms. The training modules were divided into a three-year developmental sequence: (a) elementary level, (b) secondary level, and (c) inservice training. The purpose of the modules was to sensitize regular education teachers to students with exceptional educational needs, to explore attitudes toward such students, and to expose personnel to techniques, strategies, and methods of managing both the curriculum and behavior of mildly handicapped students who are mainstreamed into regular classes. To accomplish these goals, the staff developed a series of video tapes on various topics pertaining to mainstreaming accompanied by activities and materials which were incorporated into the modules. Neither the tapes nor the materials were for use in isolation. Although the materials could be individualized with modifications, the intent of the project was to have a facilitator lead the group discussion on each module. It was felt that the group interaction was crucial to developing positive change toward effective mainstreaming.

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The mainstreaming process was conceptualized as having some common elements at both the elementary and secondary levels; however, the type of students, nature of the problems, and teaching strategies were viewed as being different at the two levels. Further, it was speculated that there would be some differences between pre-service and inservice training. Therefore, the project was developed in three phases: elementary, secondary, and inservice training.

Integrating the special child into the regular classroom, "good" education for all students, individualizing instruction, and least restrictive environment are the basic concepts focused on in the program described in this chapter. "I'm A lot Like You" was developed on the premise that mildly handicapped students are more "alike" than "different," and the principles and strategies used to teach special students are similar to those used to teach any student. Successful mainstreaming can be achieved if teachers understand individual differences, explore their attitudes toward handicapped persons, and are aware of the assessment procedures and programing for individual differences. Teachers must understand their roles and responsibilities in educating mildly handicapped students.

The process used to develop the various components in this project was refined during each phase. As the staff worked through the production process, problems were encountered that necessitated changes in approach and methodology. Timelines were extended, implementation procedures were modified, and evaluation techniques were more clearly specified.

In the following sections, the content of the video tape/support materials are described, the process used in the development of the mainstream project are discussed, and methods of utilization or implementation are recommended.

UNIVERSITY AND STAFF

The University of Wisconsin-Milwaukee is an urban university with an enrollment of about 25,000 students. The School of Education has about 4500 students; some 1500 students are enrolled in the Department of Curriculum and Instruction and about 750, in the Department of Exceptional Education. The campus Instructional Media Laboratory produced the video tapes and provided the following services: graphics preparation, writing assistance, a television studio, and remote equipment. Instructional Media Laboratory facilities and equipment include a studio with broadcast quality equipment and 2-inch quadraplex video tape, and remote facilities with an airstream trailer containing quadraplex equipment and color cameras. The University printing service reproduced the manual.

Major project personnel includes the director, whose background is Home Economics, Mental Retardation, Emotional Disturbance, and

Learning Disabilities; and two staff members, one with a background in regular education and the other whose specialty is exceptional education. Further assistance has been provided by a producer-director with a media background and a graduate research assistant who has expertise in computer programing and data analysis.

PROJECT COMPONENTS

Each module in this mainstream project follows a basic format beginning with a director's guide, which outlines how to implement the module. The materials in the manual include (a) pre-post tests on the individual module; (b) goals and objectives for the module; (c) glossary of terms; (d) bibliography and references; (e) required readings and activities; and (f) optional readings and activities.

A preview tape was produced to give an overview of the individual modules. The elementary program consists of 14 modules, the secondary program, of 11. Three of the modules are used in both the elementary and secondary programs. The modules are listed in Tables 1 and 2.

Table 1

I'm A Lot Like You

Elementary Program Outline

Understanding Individual Differences

1. Legislation*
2. Philosophical Considerations
3. Human Relations
4. Range of Services*
5. Characteristics

Assessing Individual Differences

6. Observation, Recording & Graphing
7. Informal Inventories
8. Diagnostic Teaching*
9. Referral & Multidisciplinary Process

Programing for Individual Differences

10. Teacher Behavior Variables
11. Environmental Variables
12. Reading
13. Mathematics
14. Behavior Management

*Modules used in both elementary and secondary programs.

Table 2

I'm A Lot Like You

Secondary Program Outline

Understanding Individual Differences

1. Legislation*
2. Philosophical Issues
3. Human Relations
4. Range of Services*
5. Characteristics

Assessing Individual Differences

6. Informal Inventories
7. Diagnostic Teaching*
8. Multidisciplinary Team & Individual Educational Plan

Programing for Individual Differences

9. Curriculum Analysis & Management
10. Career & Pre-Vocational
11. Social & Affective Variables

*Modules used in both elementary and secondary programs.

Because the programs were developed for both the pre-service and inservice training of regular educators to work with special students, and because the modules can be used with other professionals and parents, a great deal of flexibility was built into each module. The choice of activities and readings depends on the nature of the group being trained and the amount of time available for each session.

Content

ELEMENTARY LEVEL PROGRAM

The elementary pre-service training modules were developed during the first phase of this mainstream project. As the individual modules were evaluated and field tested, some revisions were made. Some modules were completely revised for inservice use while others were made appropriate for both pre-service and inservice. A brief description of the content of each module follows. Both the concepts presented in the video tapes and the information and activities included in the support materials are described.

The program is divided into three major areas. (a) *Understanding Individual Differences:* provides background information on mainstreaming and sensitizes participants to handicapped individuals and the exploration of their feelings and attitudes toward mainstreaming. (b) *Assessing Individual Differences:* participants learn some techniques on gathering appropriate information on students and assisting in the assessment and evaluation process. (c) *Programing for Individual Differences:* an ecological module in which the teacher learns to analyze his/her teaching style, classroom setting, and curriculum materials and approaches, and to look at various management strategies for an individual student and a class.

Understanding Individual Differences

Module 1: Legislation

A news reporter relates the historic background of state and federal legislation on education. Many court cases that led to the development of most of the laws regulating the education of handicapped persons are briefly reviewed. The main focus is on Public Law 94-142 and the Wisconsin State law. However, the information presented is pertinent to the laws of most states and, particularly, to the federal law.

The reporter interviews a parent, school administrator, teacher, legislator, and tax payer for their views on the rights of handicapped persons and on educating handicapped children in the public schools.

In the follow-up activities, participants review and compare their state laws and the federal law. They discuss the pros and cons of "Tommy," a case study of a handicapped pupil in a regular classroom.

Participants are asked to examine their feelings and concerns about the mainstreaming concept. Optional activities include an audio tape of Gilhool (no date) on the "right to education" concept, an article by Birch (1974) defining mainstreaming, and a role-playing activity in which the participants' feelings about integrating a special needs student into their classrooms are explored.

Although this module presents basic information on current legislation, it also affords participants an initial opportunity to explore their feelings and attitudes toward the mainstreaming concept.

Module 2. Philosophical Considerations

Four major issues pertaining to the concept of mainstreaming are explored through the video tapes and module activities. Each issue is presented through a role-played incident or discussion. Stop tapes allow the participants to examine the issue from their own perspectives. Prior to viewing the tape, small groups are formed and participants are asked to reflect on an incident in which they could not keep up with a group and to recall their feelings about themselves, their teachers, and their peers.

Issue 1, the priority of the group vs. the priority of the individual, is presented by two teachers discussing how they teach math and factors that inhibit and promote individualization.

Issue 2, teacher accountability vs. teacher standards, is illustrated by a role-playing principal discussing the low-achievement scores of the students in a teacher's room. Participants react to the principal's comments and express their responses to the principal.

A teacher and parent discuss issue 3, equal right to an education vs. an equal product, that is, every child in the third grade learning the third-grade curriculum. Case vignettes are presented in the follow-up activities. Participants must decide when individual rights are being violated and when it is proper to share information on a student.

Teacher responsibility to the classroom vs. the total environment is issue 4. Here, two teachers discuss the gathering of information on a student only from classroom data vs. classroom data and outside sources (e.g., home or community). The discussion prior to viewing the tape examines feelings toward grade retention.

Optional activities in and additional articles on both mainstreaming and individualizing instruction are included. Depending on the group and the amount of time available, selected issues can be used or additional issues added to this module.

Module 3: Human Relations

Participants are asked to recall memories of handicapped students with whom they went to school: how the student was treated by other students and by teachers. No value judgments are made; only feelings are expressed, and participants are encouraged to state both positive and negative feelings.

The first portion of the video tape shows a regular classroom teacher role-playing with her students. The students develop a skit in which one has a difference (e.g., girl race-car driver) that comes as a surprise to the rest of the students. The activity is based on the DUSO materials published by Developmental Learning Materials. In this portion of the tape, the teacher explains how she prepared her class for the mainstreaming of a handicapped individual by emphasizing the uniqueness of all individuals (i.e., height, eyes, rate of growth, etc.). At the stop tape, participants analyze the students in the tape for their understanding of individual differences and of handicapping conditions, and the teacher's techniques in aiding students to accept handicapped persons.

In the second portion of the video tape, a teacher of physically handicapped pupils discusses with them their feelings about being handicapped and their experiences with nonhandicapped students at school and on the playground. The handicapped students are very honest and open about their feelings and handicaps. The teacher demonstrates a technique to assist students who will be placed or are in mainstream classrooms.

The video response form used with this portion of the tape asks participants to write adjectives and phrases describing each student, to state their expectations for the student and, finally, to note whether they would integrate the student into a regular classroom. After discussing their reactions with the whole group, the participants are asked to rank the four students on academic and social performance and to indicate with which one they would enjoy spending more time. Again, participants share these responses with the group; and each person is encouraged to be honest and open in exploring his/her feelings.

As closure to this human relations video tape, the narrator presents a brief case history of each of the four handicapped students, including medical data, academic information, and prognosis. The participants discuss their reactions to the unexpected information that is given in terms of student expectations and mainstream potential.

Participants then gather into small groups to brainstorm what they can do in their own classrooms during the following week. Follow-up activities include readings on how handicapped persons are more like nonhandicapped persons than different. Two extensive bibliographies are included: (a) a list of children's books about exceptional persons and (b) a list of autobiographies and biographies of exceptional persons for teachers, parents, or older students.

This module has a very high emotional impact on the participants. The actual classroom situations, with both regular and special education teachers exploring their feelings and attitudes toward handicapped pupils, demonstrate methods to assist in the mainstreaming process. The module has been received with much enthusiasm.

Module 4: Range of Services

The basic concepts of a continuum of services model in the mainstreaming process are presented during the first portion of this tape. Using the cascade model to illustrate the various levels of support and types of programs, the initial presentation is made through charts and narration. To illustrate how both the student's program and curriculum emphasis might change as the individual goes through school, one student, "Bill," is followed from elementary through junior high to senior high school. "Bill" is shown in mainstream situations at each level while modifications and changes in program support are discussed. Mainstream support is demonstrated by developing procedures such as contracting, peer tutoring, parent conferences, and home carry-over.

After viewing the tape, participants analyze case vignettes to determine the level of service that is needed for each student and the basis for this decision. In the subsequent discussion, the leader keeps the focus on handicapping factors, such as severity, frequency, context, duration, and interference with the student himself or others.

Another activity focuses on the role of the regular classroom teacher as a child advocate. Types of support needed at various levels of programing are discussed. An optional activity is a sharing of the participants' knowledge of available special education services within their districts. As a follow-up activity, participants complete analyses of their districts in terms of the continuum of services available and the types of support offered by various personnel.

This model was developed for use with both the elementary and secondary programs. Therefore, discussion also can center on the student's type of current program, expectations, and possible types of future programs.

Module 5: Characteristics

This module is founded on the concept of normalcy factors which must be considered when we try to label individuals. A prerequisite to viewing the video tape is an analysis of variations in participants' characteristics (e.g. height, shoe size). Again, the concept of a continuum of characteristics is suggested. The assessment concepts of frequency, duration, degree, and number of settings are discussed. The issues of labeling and categories for the handicapped are presented.

For purposes of this module and mainstreaming, clusters of characteristics (i.e., learning, behavior and adjustment, communication, and sensory and motor) are presented and common categories are illustrated under the most appropriate cluster area. Charts and narratives illustrate that the large amount of overlap in each categorical area means that the use of a label or category does not tell enough about a student. As each cluster is discussed, examples are shown of students in formal and informal testing situations. As the narrator discusses characteristics, the continuum of handicapping conditions is illustrated. The major point of this module is that a teacher must know the *range* of normalcy and when to get assistance for a student. The degree of mainstreaming depends on answering questions about where, what, severity, intensity, and frequency.

In follow-up activities, participants work in pairs to simulate different handicapping conditions by using only one communication channel to give the information required. Another simulation used at the end of this session is an IQ test which each participant completes. In the following session, the test is used to explore participants' feelings about test taking, labeling, and placement decisions. Additional readings in each disability area are part of this module.

Assessing Individual Differences

Module 6: Observation, Recording and Graphing

Four basic methods of collecting data on students are reviewed: checklists, rating scales, anecdotal records, and behavioral counts. The principles of each type of measuring tool are reviewed and practical applications are illustrated. Many stop tapes in this module allow participants to complete anecdotal reports as they view a classroom situation or an individual child's behavior. Initially, they compare their reports with one on the tape; later, reports are compared in a small-group activity. In another part of the tape, participants actually take behavior counts on a student in a simulated situation and review samples of graphing techniques and methods of data recording. Both student self-recording and teacher recording are demonstrated.

Case vignettes are used in follow-up activities to give practice in graphing procedures. A case study is included and participants are asked to determine the information that must be gathered and the methods of gathering and recording the data. Many samples of recording and graphing techniques are included.

Module 7: Informal Inventories

This module focuses on assessing individual differences through the use of informal inventories. Many procedures are illustrated and stop tapes are provided for discussion purposes. Participants practice various techniques through sample activities (completed during the stop tapes). On the tape, teachers illustrate the use of informal inventories to collect language data (e.g., a student tells about a picture), analyze reading through the use of the "cloze" procedure, and record errors during an oral reading exercise. A demonstration is given of the use of informal inventories to gather data on social behavior by administering a sociogram and applying this technique to classrooms and students.

Supplemental activities include the use of sociograms in classrooms in both social and academic areas. Many samples of informal inventories are included in the materials. Participants are asked to bring in work samples from their classes which are used to demonstrate how informal inventories can be developed for everyday work. They also share effective informal inventories and develop some for use in various subjects.

Module 8: Diagnostic Teaching

A video tape shows a diagnostic teacher working with a junior high school student to demonstrate the processes by which some special educators individualize programs for students. The process presented includes the following steps: (a) evaluate, (b) identify learner characteristics, (c) set goals and objectives, (d) select tasks and materials, and (e) develop strategies. Each step is illustrated by a teacher working with a student.

Participants write goals and objectives for the students with special needs in their classrooms and share them with a small group. In another activity, participants analyze specific case studies to determine the step in the diagnostic process that is presented and what should be done next.

This module was developed for use at both the elementary and secondary levels. Although it is optional, that is, it need not be used by regular classroom teachers, it gives a clear picture of special education techniques for individualizing programs.

Module 9: Referral and Multidisciplinary (M-) Team

This module is under revision to make it shorter and more consistent with the revised guidelines of Public Law 94-142 and state laws in general. More emphasis will be placed on the development of the Individualized Educational Plan (IEP). However, the approach, activities, and content will remain unchanged.

A case study approach is used to illustrate the process of referral, M-teaming, and writing IEPs for a student. "Brenda" is a real student who has been diagnosed and placed in a special education program. Various staff members collect data, talk with the parents, and come to a team decision about "Brenda." Emphasis is placed on the regular classroom teacher's responsibility in this process. Questioning techniques are demonstrated as well as information giving by the teacher. Parents' rights and school and teacher responsibility are discussed as the team follows the procedures through a decision-making process. The roles of various team members are illustrated as are demonstrations of the assessments by team members in support of their statements.

As follow-up activities, participants discuss such topics as the referral procedure, what information needs to be gathered and by whom, and, specifically, the kind of information that a teacher can provide. In a simulated case study, participants fill out a referral form, analyze various assessment instruments, and determine which staff member is most likely to use the tool.

The many optional activities include analyzing a video tape of good and bad examples of teacher-parent conferences; reading selected materials on parent conferencing; viewing various tests in terms of content and value; and role playing a case study of an M-team. Also, an entire M-team could be brought in to go through different cases and processes.

Despite the need for revision, this module has been successful with groups of psychologists, social workers, and administrators. The facilitator who has a good knowledge of the process is the key to the effective implementation of this module.

Programing for Individual Differences

Module 10: Teacher Variables

A prerequisite activity to the module is the participants' reflections on teachers they have had with characteristics they liked and did not like. A video tape is then shown and accompanying activities are completed. The entire session is a series of video tape incidents that demonstrate factors affecting teaching styles. Participants analyze teacher-student interactions in situations that are actual classroom scenes, for the most part; a few have been role-played to demonstrate some teacher variables.

Among the teacher variables illustrated are accepting and nonaccepting responses to student behavior. As they observe the teachers' behaviors, participants fill out a video response form to analyze the role of the teacher as a facilitator or director. In this portion of the module, a teacher leads a group discussion as a facilitator who asks questions and responds to students' comments.

Participants observe verbal and nonverbal language examples and then analyze them in small-group discussions. Participants also evaluate the teacher's ability to read student cues and needs and then discuss how they would respond, or other ways the teacher could have responded.

Two major teacher variables demonstrated and analyzed through video tapes and stop tapes are questioning techniques and direction giving. Participants share their perceptions of how these variables were demonstrated. They also write questions at different levels of comprehension for a sample reading page and specify ways of making directions clearer. Supplemental readings are included for follow-up or further explanation of factors affecting the qualities of good teaching. They can be used by the participants for self-analysis.

Because too many concepts are presented for one session, the module will be revised. The large amount of material did not give participants time to discuss and analyze the concepts in sufficient depth. One of the most positive aspects of this module, however, is the constant interaction with the tape during which participants observe, analyze, discuss, share, and make recommendations for handling the situations in more effective ways.

Module 11: Environmental Variables

A series of slides and actual classroom scenes illustrate room arrangements, grouping strategies, and classroom atmospheres that enhance individualization and meet the needs of all students within the regular classroom. Again, stop tapes permit participants to examine the ideas presented and to develop their own plans to implement in their own teaching situations.

In the various room arrangements, examples of different specialty corners, work areas, and learning centers are shown. Systems for checking work in and out, record keeping, and scheduling are illustrated and discussed. Participants are then asked to arrange classroom floor plans. After viewing the next portion of the video tape on grouping strategies, participants take a hypothetical classroom of students and, given certain independent and learning-center activities, formulate groupings for structured and unstructured activities of various sizes. They evaluate their previous room arrangements in terms of the grouping dimension. Finally, participants view various classrooms for the atmosphere created in each. They observe student work samples, bulletin board ideas, and room areas that enhance learning for the handicapped student.

After watching the entire tape and completing the stop tape activities, participants develop room plans to accommodate various individual needs within their own programs, share their ideas and arrangements, and discuss the problems. They change their rooms and report back to the group on the effects on their classes.

Portions of this module will be revised to focus more on the effects of environmental variables on students with exceptional education needs so that follow-up readings need not be required; and to cut down on the materials and activities so that facilitators will be able to focus on the most important activities for their groups in the amount of time available for each session.

Module 12: Reading

Two tapes are currently available in this module. When the elementary program is revised, one tape will be developed to emphasize curriculum modifications for specific reading problems. This information is presently inferred in the reading tapes and activities.

As a prerequisite to the video tape presentation, participants read *Primer for Parents* in small "reading groups" in which one person acts as the teacher. The book is based on a different symbol system that creates reading difficulties for the participants. This simulation activity is discussed in terms of feelings and methods of approaching the new system.

The first tape presents the concept of individualized reading programs through a slide show of one school's individualization of the reading program for all students in grades K-3. Participants fill in a video response form covering grouping strategies, media and material utilization, record-keeping systems, and accommodations made for individual differences. They share their responses with the group and discuss advantages of and problems with individualized reading programs. As a follow-up activity, participants take a reading activity in their classrooms that day and adapt it to meet the needs of three different students.

The second video tape reviews the four basic approaches to the teaching of reading: basal-sight word, phonic, language experience, and linguistic. Teachers demonstrate each approach with students and participants fill in a methods-analysis chart while viewing the tape. A guided discussion follows each approach. Various follow-up activities are included in this module for participants.

1. Given basic reading skills, the participants place them in a sequential teaching plan.
2. In small groups, they plan teaching strategies for specific lessons in the four approaches.
3. They plan lessons to teach content clues, comprehension skills, and other reading skills at different levels to students with various disabilities.
4. They analyze scope and sequence charts from different reading programs.
5. They discuss types of reading errors that might indicate learning deficits.

Handouts include suggestions for individualizing reading skills gradually and an outline of selected remedial programs that are appropriate for students with various learning styles and patterns.

Again, it must be emphasized that much material is presented in this module and the facilitator must select carefully those tapes and activities that best meet the needs of the group within the time constraints.

Module 13: Mathematics

This module consists of two video tapes, the first of which is optional, depending on the needs and background of the group. The tape demonstrates the assessment of a student's arithmetic skills according to Piaget's developmental theory. Several readings on general math skills and Piaget's math developmental theory are used with this tape. As a follow-up activity, participants are divided into small groups to develop strategies and suggest materials to teach certain readiness skills to a student with a specific handicap.

In the second tape, slides and classroom situations demonstrate modifications and adaptations of materials, teaching strategies, and teacher expectations for mainstreamed students or for the development of an individualized math program. Specific adaptations are shown that include centers, use of aides, peer tutoring, one-to-one and small-group teaching, games, and self-correction procedures. Other adaptations are varying the length, method of completion, and complexity of assignments, reinforcement for work completed, and contracting for amount of work. Ideas on the use of folders, job sheets, conferences, and recording systems are also illustrated.

Following this basic information tape, a variety of activities can be used.

1. Ideas for simulations of teaching math to handicapped students (e.g., a blindfolded person).
2. Developing a learning center or game to meet specific requirements and evaluating it according to essential characteristics.
3. Taking a math concept taught recently and individualizing it for students with learning, emotional, mental, auditory, visual, or language difficulties.

A reference list for teaching math skills to students with various types of disabilities is distributed. This module has proved very successful so far. It gives many helpful ideas for adapting the math curriculum to meet the needs of the handicapped student in the mainstream.

Module 14: Behavior Management

This final module in the elementary program demonstrates effective techniques and procedures for helping students to make positive behavior changes. Some of the situations are role-played in order to make specific points; others are actual teacher/classroom/student interactions.

Some basic principles of classroom management are pointed out initially. Participants observe the antecedents and consequences as well as the behavior itself (ABC technique). The use of praise is demonstrated in one scene and a special education teacher demonstrates the use of management procedures in a regular classroom, in another. Several methods of charting behavior are explained in a second portion of the video tape. One procedure illustrates how students can become increasingly more involved in the monitoring of their own behavior over a period of time with some assistance. Examples are given of letters to parents and good work charts which can be sent home. Following the tape, participants analyze various discipline problems according to type and cause, and they identify the behaviors described in a case study. In another activity, a situation is presented through a vignette and the participant must plan a procedure to strengthen or weaken a behavior. Handouts on techniques are included in the module materials. Another activity centers on explanations of why students misbehave. Given descriptions of various situations, participants speculate on which of the five basic reasons might cause a student to misbehave. Optional activities and readings are as follows:

1. The use of reality therapy and counseling techniques with students.
2. Making vague behavioral descriptions into hypothetical objective descriptions of a particular child.
3. Reading and suggestions for working with withdrawn and hyperactive children.

The module facilitator must be knowledgeable about the subject and the materials included in order to select the crucial activities for the group within the time limitations. This module has a high impact if it is carefully used because many mainstreamed students are management problems for the classroom teacher.

SECONDARY LEVEL PROGRAM

The secondary mainstream program is currently in the final developmental stages. Tapes are being edited and support materials and activities are being compiled and organized. Rather than detailing the content of individual modules, the over-all differences, modifications, and inclusions are presented.

All the secondary tapes were developed for use with both pre-service and inservice participants. The tapes are no longer than 30 minutes; again, stop tapes allow activities and discussions to develop at various points. More application and analysis of participants' programs or simulated programs are included to make the modules as practical as possible.

The three major module areas are understanding, diagnosing, and programing for individual differences. The legislation, range of services, and diagnostic teaching modules are the same for both the elementary and secondary programs. However, the remainder of the modules focus on adolescent concerns, students, and classrooms. Fewer role-playing situations are used and more actual classroom and real situations are incorporated into these tapes. Briefly, the following information will highlight the new secondary modules:

1. Legislation: Same as elementary tapes.

2. Philosophical Issues: Current issues discussed include (a) total group instruction vs. individual instruction, (b) the relevancy of the curriculum vs. standard content, (c) classroom expectations vs. broader environmental expectations, and (d) exclusion vs. zero-reject models.

3. Human Relations: Nonhandicapped students talk about their per-

ceptions of handicapped people and special education students discuss their perceptions of being in special education programs. Also, several students who have graduated from high school reflect about being labeled and placed in special classes. In a high-impact session, a boy interviews his sister on her mislabeling and her feelings connected with institutionalization.

4. Range of Services: Same as elementary tapes.

5. Characteristics: A high school teacher discusses the concept of normalcy and the adolescent period. Two students and samples of their work are described; assessment and data collection for these students are illustrated. Many overlaps in characteristics make a specific diagnostic decision more difficult at the secondary level; however, the information presented relates to the traditional categorical system despite the difficulties connected with this approach.

6. Informal Inventories: Samples of behavior from which participants write anecdotal records are presented. Behavior observations and counts are also made. Many samples of informal inventories are included and the interviewing technique is presented as a method of obtaining information from an adolescent.

7. Diagnostic Teaching: Same as elementary tapes.

8. Multidisciplinary Team and IEP Process: An intact team re-evaluates and makes recommendations for the future programing for a high school student, and demonstrates the process of developing an IEP. The basic referral process, role of various team members, and legal considerations are included in this module.

9. Curriculum Analysis and Management: Modification and adaptation of materials, expectations, and classroom procedures are demonstrated through the use of both live classroom situations and slides. The discussion also covers how each teacher can adjust his/her program and teaching strategies as well as environmental variables to meet a wider range of student needs.

10. Career and Prevocational Considerations: A basic philosophy of incorporating career awareness into all content areas is suggested along with the idea of looking at the relevance of content for applicability to daily living. Activities assist participants in the development of these concepts for immediate implementation within their specific programs, and demonstrate the approach in various subject areas.

11. Social and Affective Variables: Various management procedures that are appropriate to the secondary level are presented. Values clarification techniques are demonstrated with groups of students. The focus is on both the environment and the student in terms of developing relevant and motivating programs. Participants role play situations in order to practice suggested techniques, in addition to analyzing and evaluating various approaches.

Process Used in the Product Development

DEVELOPMENTAL PROCEDURES

"I'm A lot Like You" was developed through the cooperative efforts of the Departments of Exceptional Education and Curriculum and Instruction. Three major components can be identified in the product development: (a) conceptualization, (b) video tape development, including script writing, filming, and editing, and (c) material development, including activities, support materials, and the project manual.

Conceptualization

To develop this mainstreaming project, an initial review was conducted by project staff. Major areas of concern were identified and goals and objectives for each were specified. Two advisory committees were established — a faculty advisory committee and a community advisory committee — which met to give ideas and reactions to both the video tapes and the materials. In addition, faculty and community members served as consultants during the formative stages of the project.

Questionnaires were sent to people in the field to determine critical issues and points for inclusion in each module; literature searches were conducted; and outside consultants evaluated the concepts included and the quality of the product. During the conceptualization stage and throughout the project development, contributions were sought from all available sources.

Video Tape Development

The development of the video tape components consisted of (a) writing the scripts, (b) filming the situation, and (c) editing the raw tapes. In writing scripts, it was necessary first to determine the major purpose of the tape, that is, the exposure to ideas and concepts, actual instruction, overview, simulations, presentations of information, or summary. Everything was written: the audio and visual portions, timing aspects, voice overs, graphics, and simulated and actual scenes. The media department staff made suggestions on the best way to convey an idea, the most effective graphics, and the simplification of language needed to present the main idea, for example. Outside reviewers went over the scripts prior to taping sessions.

After the scripts were written, appropriate locations and personnel were identified for the training sessions and legal clearances were obtained from all participants. Project staff met with participants to familiarize them with the desired content; the producer-director checked the facilities for accessibility and made the final arrangements for setting up the equipment; and the producer sensitized participants to the production process. Television-studio-quality equipment for both studio and remote filming was used.

After the filming but before editing the tapes, the initial scripts were revised and clarified. Again, consultants and advisory groups were called upon. Specific filmed segments were identified, graphics were developed, voice overs (narration) were recorded, and printing overlays were typed. The project staff was present during the editing process to insure that proper conceptualization was achieved.

Special songs were written and recorded for the two programs. The final production step was the addition of credits and opening and closing segments.

Material Development

This phase of the mainstream project includes the production of activities, supplemental readings, and other module components as well as the writing of the project manual.

When this project was conceptualized, an integral part of the program was the activities and other materials required for use with the video tapes; neither tapes nor materials were meant to be used in isolation. As the goals and objectives for the tapes were specified, decisions were made on how the remaining goals and objectives could be met. Possibilities included prerequisite readings and activities, follow-up readings and activities, activities incorporated into the stop tapes in the video tapes, and optional readings and activities. Not all concepts, ideas, and skills could be presented in any one module nor in the total program, but the most significant could be identified and made part of the total program. Certain ideas were conceptualized as threads running through the program to be reinforced whenever possible. Materials and activities developed by other Deans' Grants Projects throughout the country were incorporated when they were appropriate. Consultants were used to determine and review the materials and activities for individual modules. A bibliography and pre-post test were developed for each module. Decisions for including materials and activities were based on how to maximize learning with as much participant involvement as possible in both materials and video tapes. Copyright releases for all necessary items were obtained.

The final stage in the development of this project was to compile a manual for use by facilitators. Items included in the manual were the project overview, pre-post tests, goals and objectives, glossary of terms, bibliography, readings, activities, and other supplemental materials. After a standard format was determined, the manual was printed for evaluation prior to revision. Each module has two parts: (a) the facilitator's guide, which has all the materials as well as responses or answers to all tests and video response forms; and (b) the student portion, which includes all pages which can be removed and duplicated for handouts.

Promising practices

Consultation with persons who have worked with the manual provided feedback on usability to the staff.

DEVELOPMENTAL PROBLEMS

The major problems in the development of this type of media/material project can be delineated. Some of the problems that were identified through project evaluation procedures are as follows:

1. After completion of several modules, evaluation procedures indicated that some video tapes were too long and too complicated for use with persons not familiar with exceptional education and the mainstreaming process.
2. Some modules incorporated too many activities and readings that, ultimately, tended to limit the effectiveness of the information presented.
3. Materials and readings for some of the modules were not readily available and some were not appropriate for the project, particularly at the secondary level.
4. The time lag between the conceptualization of the project and the final production was about three years. During this time, major changes in information about mainstreaming occurred, particularly in the legal area and multidisciplinary process. Therefore, revisions are necessary.
5. The expense of developing this project was grossly underestimated. At no time during conceptualization or production was the project outlined in its totality. Also, initial estimates for the project did not include the high-quality equipment nor taping procedures. Therefore, the cost of the project is higher than anticipated.
6. The time and energy required to cut through school district and legislative red tape was not foreseen. This was true for the clearances for taping and for the releases for copyrighted materials. The time lags hampered production schedules.
7. Decisions on the final format for the project manual were difficult. The most usable and efficient product was developed through suggestions from many people after the various modules had been pilot tested.
8. The fine-line discrimination between quantity vs. quality of materials and activities was not always considered. Therefore, some activities and readings were eliminated after pilot testing. Enough materials had to be included to make the product as flexible as possible while remaining appropriate for the variety of persons who would be exposed to the modules.

Some of the problems could have been avoided if the following points had been taken into consideration:

1. The staff size and experiential background must be appropriate to the magnitude of the project.
2. Good rapport between the project staff and the production staff must be established for the necessary input and feedback on the mod-

ules. Each group has an area of expertise that must be shared if a high-quality product is to be developed.

3. Advisory committees and consultants must be used continually throughout the project. Sometimes, coordination of these people is difficult and they are easily bypassed. Their suggestions are crucial if the best possible conceptualization and evaluation is to occur.

4. Clearly specifying the purposes of the tapes and types of situations desired assists the producer during actual filming and editing, otherwise much time and money are wasted and the ultimate outcome is not of the highest quality.

Implementation

USE OF MODULES

The "I'm A Lot Like You" project was designed for and has been used at both local and national levels. Although the program is extremely flexible, some problems have occurred in the implementation process.

Local Level

The program has been pilot tested in Milwaukee with students at the pre-service training level and inservice participants.

Pre-service. When the project was initially conceived, incorporating the modules into all regular classroom teachers' training programs was anticipated. During their training, students also would be placed in field work/student teaching settings where they would interact with handicapped individuals in the mainstream. In addition, regular Curriculum and Instruction staff were to be trained as facilitators and either would use selected modules in their own courses or would teach, or assist in the teaching of, a course in mainstreaming.

Several Curriculum and Instruction faculty members requested project staff members to teach various modules to their students. A faculty member who participated in the pilot test course incorporated the entire program the following semester into his curriculum course, which was offered in conjunction with student teaching in regular education.

The following problems were encountered in the implementation of this program at the pre-service level. (a) Cooperation and communication between regular education and exceptional education staff may not be adequate. A high degree of coordination is needed to teach the course on a team-teaching basis. (b) Because of certification requirements by the state education agency, it is difficult to fit another three-credit course into a student's curriculum. Perhaps incorporating the modules into various courses might be effective; however, this approach will not meet the requirements in some states for students to have from three to six credits in exceptional education, including mainstreaming the special child into the regular classroom.

Inservice. The inservice course using this program with regular education personnel was implemented through the University extension office. Participants holding many different positions came from various school districts. The course was offered for the 16 weeks of a semester. Materials were modified only slightly for the inservice group.

When implementing the program as an inservice course, the following problem areas must be considered: (a) The diversity of the group must be taken into account when deciding which activities to implement in each session. (b) The length of the video tape portions for teachers and other personnel familiar with exceptional education students and teaching in general could be shortened (we will do so during the revision phase of the project). (c) The facilitator must be familiar with the materials, philosophy, and concepts presented in the program in order to teach the course most effectively.

One-Session Implementation. Various modules have been used with such groups as parents, psychologists, social workers, special education personnel, principals, and regular educators. Selective adaptations can be made from each module. The main considerations are to determine the type of group and the purpose of the sessions. Another factor that influences the effectiveness of the modules is the length of the session. Extreme care must be taken when the modules must be used in brief time periods. However, if the facilitator is fully aware of the materials and concepts presented, he/she can use portions of the video tape and selected activities.

One of the major problems observed during one inservice session is the lack of follow-up time to observe change and to develop concepts further. Also, there are tendencies to use the tapes in isolation without discussions or follow-up activities, which is against the release agreement of the project.

Other Levels. The project has been implemented in workshops, pre-service and inservice programs, and conventions throughout the country. Universities are using selected modules or the entire program for courses. One university has adapted the activities and materials for use on an individualized basis. The Wisconsin SEIMC (Special Education Instructional Materials Center) has trained two facilitators from each of the 16 regions in the state to present the program. Currently, they are using the modules for inservice purposes in their regions at the local school district level. Michigan is also training facilitators throughout the state to implement the program. Professional groups around the country are requesting exposure to and training in the project. Other agencies are purchasing the program and training personnel to implement the modules. The effectiveness of the program is due, in part, to its high degree of flexibility and the variety of materials and activities.

Some major problems have been encountered by the project staff. (a) Pressure has been brought by agencies to use the program on television without a facilitator or the viewers' involvement in activities and supplemental materials. (Legal clearances given by the people in the video tapes prohibit the use of the modules on Public Broadcasting Stations or for profit.) (b) Some facilitators implementing the modules have not familiarized themselves with the materials and video tapes and, therefore, are unable to get the full impact and benefits of the program.

DISSEMINATION

Dissemination of this project has been accomplished through a brochure that is sent to interested persons upon request. It has been mailed to agencies and organizations throughout the country. A preview tape giving an overview of the entire project and showing samples of each module was also produced for this purpose.

The program is being disseminated at cost through the University of Wisconsin-Milwaukee. However, many problems have been encountered in this process. (a) It is difficult to anticipate the market and to keep tapes in stock. (b) When agencies order selected modules and break up the sets, replacement is necessary. (c) The billing and financial arrangements were not readily apparent and much time was expended in attempting to "crack-the-code." (d) Much staff and secretarial time is spent on filling orders and mailing packets.

Further dissemination will occur through workshops and training sessions throughout the country. The first priority, however, is to complete the project development and revisions. The project staff is not large enough to conduct activities at both the developmental and dissemination levels. In addition, more data must be collected on the effectiveness of the modules and the follow-up of participants in the training programs. Assistance from dissemination organizations would be beneficial if training programs and product developers are to avoid the reinventing-the-wheel syndrome.

In the production of a project such as "I'm A lot Like You," the preceding information must be kept in mind both at the proposal-writing stage and during the production phase.

Summary

"I'm A Lot Like You" is an instructional materials program designed for use at both the pre-service and inservice levels. Through the combination of video tapes and selected materials, the program develops positive attitudes toward and teaches skills in the assessment and programing of mildly handicapped individuals who are integrated into regular education programs. Mainstreaming concepts for both elementary and secondary education have been identified and differentiated; thus, two separate and unique programs were developed.

When developing this type of a training program, several points must be kept in mind to cut production costs and to insure a quality product. The following points are crucial:

1. The full scope of the project must be clearly identified in order to determine staffing needs and realistic timelines.

2. When conceptualizing the project, assistance from experts in the area of media development must be used to determine a comprehensive picture of the project.

3. More efficient use of personnel can be achieved if the staff has some knowledge or experience in media production, writing, and related activities.

4. In the development of each component, the purpose must be clearly specified, continually evaluated, and kept in focus.

5. Ongoing evaluation must be conducted. Outside consultation is usually most effective because project staff may be too involved in the development to be objective.

6. The modules must be flexible if they are to be adapted and modified for use in a variety of settings with different audiences, different time allotments, and different purposes.

7. The possibility of initiating change in the education system is higher if regular and special educators teach the course together and if the dean of the school is knowledgeable and supportive of the project.

8. The quality of the video tape and production equipment determines production cost and, ultimately, product quality.

9. Dissemination can be very time consuming; therefore, it may interfere with production and data collection if priorities are not set.

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Interuniversity Cooperation: Liaison in North Carolina

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ABSTRACT. *Appalachian State University, Boone, North Carolina, and other institutions of higher education in North Carolina are attempting to effect interuniversity cooperation through various approaches. An overview of accomplishments that are representative of the changing relations is provided in this chapter. The problems encountered or perceived as these liaison attempts are made are discussed also. Finally, there are listed the challenges facing institutions that seek to implement educational programs in concert with others.*

The need for collaboration between and among universities is apparent when one views the long-range goals of equal educational opportunity. Traditionally, institutions of higher learning have not been particularly receptive to societal needs and pressures. With the inception of Public Law 94-142 and, even more important, with what we believe and positively affirm about human worth and dignity, a responsive university system becomes imperative. What many educators have believed for a long time regarding equal educational opportunity now has potency; the university must become accountable.

The three Deans' Grant Projects in North Carolina have accepted this commitment to change. Throughout the funding cycle, the results of interuniversity cooperation have evidenced an interesting interplay of speculation, experimentation, and territoriality. New kinds of risks have been necessary. Collaborative efforts mean bringing unknown qualities and quantities together, placing trust in another's capabilities, and operating at a level of openness that defies such restrictive notions as territoriality.

To date, there are no failures to report. Positively stated, the cooperative undertakings of Appalachian State University and other universities have been successful. It must be stated quickly, however, that not nearly enough attempts have been made, not nearly enough creative efforts have been conceptualized, and not nearly enough insights have been perceived to present our data on interuniversity cooperation as exemplary. In this chapter, there are presented several dimensions of interuniversity cooperation: college faculty with college faculty; faculty with students; supervisors with supervisors; colleges with local education agencies; and project directors with project directors.

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The inclination toward interuniversity cooperation among innovative universities has been noted by Chancellor Herbert Wey of Appalachian State University (ASU). Emphasis is upon cooperation rather than competition. Consortia and exchange programs benefiting both students and professors are being developed in the United States as well as abroad (Wey, 1977).

In this chapter, the focus is on the Deans' Grants Projects in North Carolina in relation to the collaborative efforts of the three universities, and on the cooperative activities and processes which have been accomplished. Other organizations in the state system that assist in educating and training teachers for mainstreaming also are discussed. The final intent of this chapter is to suggest challenges that must be met if integrated systemic change is an over-all goal of institutions espousing equal educational opportunity for *all* learners within the school world.

The three universities in the greater university system that have been awarded Deans' Grants are Appalachian State University (ASU), North Carolina Central University (NCCU), and University of North Carolina-Chapel Hill. The "greater university system" characterizes the formal structure of the University of North Carolina system. In 1972, the general administrative consolidation of the University of North Carolina occurred. The consolidation includes 16 institutions across the state headed by one president with a chancellor at the head of each campus. The three institutions holding grants are members of the University of North Carolina system. The institutions themselves differ in many respects. The following five factors indicate some basic differences:

1. ASU and NCCU began their projects during the 1975-78 funding cycle and Chapel Hill began its project in the 1976-77 school year. It appears likely that one reason ASU and NCCU have worked together on a number of cooperative projects is that their funding occurred simultaneously.

2. ASU is predominantly a white institution; NCCU is predominantly black. The directors of the two Deans' Grants Projects have perceived a particularly important need for cooperative efforts because of student and faculty make-up.

3. The institutions with Deans' Grants are spread out across the state. ASU is frequently characterized as a northwestern mountain school; NCCU, 175 miles to the east, is located in urban Durham. Just a few miles north of NCCU is the University of North Carolina at Chapel Hill.

4. As the largest producer of teachers in North Carolina, ASU has the task of educating approximately 11 per cent of the teachers in the state yearly. It is appropriate that concern be generated for the best education and training possible when one realizes that 7309 certified personnel employed in North Carolina in 1975-76 were ASU graduates. Education graduates from NCCU numbered 1372, and from the University of North Carolina at Chapel Hill, 2235. (The education and training of teachers and other education personnel in the University of North Carolina, 1977).

5. The geographic location of ASU — the Blue Ridge Mountains — makes it attractive to students and visitors but it also gives the University some sense of isolation which is found in all rural areas. Travel "off the mountain" is recognized as a valuable staff-development component of the ASU Dean's Grant Project. Thus, a number of cooperative activities have been implemented away from ASU.

These five factors have combined in a myriad of ways to cause a seeking out of collaborative efforts by the ASU project director. A spirit of cooperation with other institutions in the state, as well as attempts to implement consortial or planning arrangements, has been highly valued at ASU for a number of years. The spirit of cooperation and encouragement toward outreach efforts is certainly not unique wth this mountain school, but it is essential in a university that seeks to be responsive to societal needs.

The Dean's Grant for Mainstreaming at ASU is housed in the Dean's Office of the College of Learning and Human Development (formerly, the College of Education). There are eight departments in the College: Administration, Supervision and Higher Education; Counselor Education and Research; Educational Media; Elementary Education; Reading Education; Special Education; Speech Pathology and Audiology, and Secondary Education. The College has 80 full-time teaching faculty. The B.S., M.A., and Educational Specialist degrees can be earned in most departments. The full-time students at the university number 8500; about 1000 graduate students participate in the field-based degree program. A heavy emphasis is placed on quality teaching and service to the region.

Processes and Products of the Search for Cooperation

Although the easiest route for the operation of the Deans' Grants Projects may be intrauniversity, the intent here is to emphasize the possibilities for interuniversity cooperation and the need for such efforts. We have found at ASU that opening the communication lines among the universities in the state that have Deans' Grants is an exciting and challenging responsibility.

The chronology of events in which interuniversity cooperation was a major consideration represents "we-tried" or "we-did" rather than "how-to" efforts. In no way is this account an ideal plan of how one university goes about cooperating with another. At best, our work has been speculative and experimental.

Throughout the Dean's Grant Project at ASU, the process of involving both regular and special education faculty has been extremely important. Their understanding that the over-all task is too formidable to waste time on territorial conflicts is essential.

Most theories of change processes recognize the need to develop trust and diminish fear. These variables are important in the "human system" referred to by Ahrends and were part of the strategy used in developing effective interuniversity activities.

BEGINNINGS — 1975

Although distance and location could easily work hardships on communication and cooperation, the ASU and NCCU relation seems to have been enhanced from the very beginning of the projects by a spirit of collaboration. In the very first month of the Deans' Grants Projects (June 1975), NCCU sponsored a conference in Durham and invited persons from around the state to attend. To this writer, who was then a new project director and new assistant dean, and is a regular educator (factors that might qualify one for a label of multihandicapped), the trip to a sister institution to learn about mainstreaming for the first time was a valued experience. It also began an important series of cooperative efforts between the two institutions.

After the first conference in Durham, plans were initiated by the NCCU and ASU project directors for a conference to be held in Boone in Fall 1975. The agenda for the two-day meeting was developed cooperatively by ASU and NCCU personnel. Although the focus for the meeting was directed to administrators of local education agencies, the conference integrated the efforts of the two universities through shared decision making, expenses, and responsibility.

CONTINUING COOPERATION — 1976

Building on and expanding our initial efforts in the second year of the Deans' Grants, the decision was made to involve the four ASU Teaching Centers which are the foci of the implementation of pre-service and in-service activities. Each center has a full-time director who is an ASU faculty member and who supervises and coordinates all University activities in the center's area. Two centers are located in the urban areas of Winston-Salem and Charlotte and two are located in the county system of Wilkesboro and Catawba/Caldwell. In 1975-76, several workshops were held at the Teaching Centers principally for student teachers. One workshop was particularly noteworthy for interuniversity cooperation. It was held in Winston-Salem, a city 100 miles east of Boone, where ASU places many student teachers annually. (It represents an urban center that is urgently needed for the comprehensive experiences of ASU's preservice teachers.) Student teachers from Winston-Salem State University, a predominantly black institution in the city, were invited to participate in the ASU workshop. Although about 40 participants were expected, more than 90 appeared for the meeting. Winston-Salem State had loaded several buses with student teachers and brought them to the workshop.

In October 1975, a conference was scheduled on the topic of mainstreaming for "faculty of programs training special educators, speech and hearing specialists, school psychologists, and adaptive physical educators" by a Special Education State Consortium subgroup — Systems for the Professional Advancement and Renewal of Knowledge (SPARK). The project directors of the three Deans' Grants Projects offered assistance to the conference in skill development in three areas related to mainstreaming: (a) expanding faculty skills; (b) adapting coursework; and (c) a resource consulting model for faculty and students. Of the 30 educators present, this writer was the only regular educator.

BROADENING THE BASE FOR COOPERATION — 1977

State and regional conferences, publications, and planning meetings characterize the third year of the project. The first event of 1977 was a January Southeastern Regional Deans' Grants project directors' meeting in Atlanta. During the preceding May meeting in Minneapolis of Deans' Grants project personnel, regional meetings had been held. A strong recommendation was registered by the Southeastern region's group for a meeting as an interuniversity group. Thus, the January meeting represented an accomplishment for several universities.

The January meeting once again provided an opportunity for the North Carolina projects to cooperate with a part of the program. An unexpected outcome of the regional meeting followed a discussion of ASU's newsletter, *Focus on Mainstreaming*. Earlier in the year, the first newsletter of a series was mailed to institutions of higher education, elementary and secondary schools in North Carolina, state department and regional district offices, and all Deans' Grants Projects in the United States. A number of project directors at the Atlanta meeting expressed their interest in publishing such a newsletter but were deterred by the costs. Subsequently, the newsletter editor and project director at ASU were able to solicit short articles from all Southeastern Projects because the National Support Systems Project underwrote the cost of an additional page in the newsletter. This interuniversity effort has been continued into the present year.

At the Atlanta meeting, NCCU and ASU again discussed the need for joint sponsorship of a conference directed to college supervisors. The title, "Helping Student Teachers Help Students With Special Needs," was chosen and both elementary and secondary general education faculty supervisors from the two universities were included. A location close to the midpoint between the two schools was selected. The one-day conference began early and went on late into the evening. Evaluations were extremely positive; the over-all quality of the program was ranked at 5 (on a 5-1 scale) by 61% of the participants and at 4 by 30%. When asked whether they would recommend a program of this nature to their colleagues, 70% responded with 5 and 25%, with 4. The give-and-take among the institutions' faculty members was encouraging; both groups asked for a follow-up session. The mini-case study approach used in the afternoon had a shared faculty responsibility; ASU special education professors led two groups and an NCCU professor led the third. The project directors also shared responsibilities for the program. Planning was done cooperatively with a shared workload for pre-conference responsibilities and shared payment for program expenses. Each project director was responsible for financial arrangements with his/her own faculty participants. Travel to and from the conference and per diem expenses were covered by the grants. The preparation of the proceedings for publication is in process.

Another 1977 activity centered on the quarterly meeting of the North Carolina Association of Colleges of Teacher Education. Institutional representatives from colleges with teacher-education programs viewed a slide show, prepared by ASU, which gave an overview of mainstreaming. A discussion of the Deans' Grants Projects followed. Of the 43 institutions in the state that have teacher-education programs, about 25 were represented. To conclude the program, a new film developed by the state department, entitled "Choices," explained the concept of the least restrictive environment using a number of North Carolina school settings as examples. For many of the institutional representatives, the meeting appeared to be their introduction to a Dean's Grant Project and the concept of the least restrictive environment.

A second SPARK conference was held in May 1977. Again, it was directed toward faculty in special education, school psychology, speech and hearing, and adaptive physical education. Objectives for the program were as follows:

1. To discuss roles and responsibilities of the college/university in implementing Public Law 94-142.
2. To discuss a variety of training and service-delivery models in regard to implementing the requirements of the least restrictive environment.
3. To become knowledgeable in the legislative requirements related to individualized instruction through participation in the development of an individual education plan.

4. To share program-development ideas presently being implemented at North Carolina colleges and universities.
5. To explore ways faculty members from North Carolina colleges and universities can collaborate on program-development efforts.

"The conference was a success as judged by the participants' reactions" (personal communication from the University of North Carolina-Chapel Hill project director). Because of the success of the conferences, others are planned. Yet the effect of the SPARK conferences are needlessly limited because of the exclusion of regular educators from participation. This exclusion persists even though representatives at the conference expressed a desire to include regular educators in their activities.

State Organizations With the Potential for Facilitating Interuniversity Cooperation

Parallel, cooperative activity in North Carolina on a larger scale than the Deans' Grants Projects began in 1974 with a consortium conceptualized by special educators in the University of North Carolina system. The consortium, "The Cooperative Planning Consortium of Special Education Programs of the University of North Carolina," is an effort by those persons who are concerned with the increasing shortage of trained personnel in the state to deal with children who have special needs. The scope of their mission is spread across the state and includes representatives from 13 of the 16 state institutions of higher education that offer programs in special education; representatives from about 8 private colleges and universities that have special education programs; representatives of the State Division of Exceptional Children and of the North Carolina Association of Educators; and representatives of the Special Interest Group of Parents and Professionals for Handicapped Children.

A Consortium Task Group describes itself as a "mechanism for inter-University, inter-Agency communication, planning, resource development, evaluation, staff training and advocacy activities" (Cooperative Planning Consortium of Special Education Training Programs, 1976). Much of the state activity in higher education on behalf of children with special needs has been generated by the consortium. They recognize the need, however, for joint planning and program development with regular and special educators, although it is not clear at this point just how the cooperation will be determined.

One component of the consortium, already mentioned, is SPARK, a staff-development system for special education faculty that has worked cooperatively with Deans' Grants project personnel on at least one occasion. The structure of this organization is, perhaps, best suited to encourage and facilitate extensive implementation in the state. SPARK is limited, however, by the restriction placed upon it to deal mainly with special educators.

In addition to the Cooperative Planning Consortium and SPARK, other groups in the state could very well press for the interuniversity cooperation effort which is so essential to the concerns of teacher education. One such group is the North Carolina Association of Colleges of Teacher Education (NCACTE), an affiliate of the American Association of Colleges of Teacher Education. This group represents the 43 private and public institutions in the state that have teacher-education programs. The major objective of NCACTE is to provide, through professional organization and cooperation, continuous search for and promotion of ideas and practices which are most effective in the education of teachers, particularly those in North Carolina. Clearly, the interest of and commitment by this group would go a very long way since it appears to be most representative of teacher-education programs in the state.

In summary, the major interuniversity efforts to date have been conferences and workshops directed toward such diverse groups as student teachers, local education agency personnel, faculty members, college supervisors, and project personnel. Although the record clearly indicates successes, the activities undertaken seem small indeed in view of what should be accomplished. The major value of these efforts seems to be in both cognitive and affective areas. Positive attitudinal changes during the collaborative sessions are often the easiest to observe, given that the participants ask for more. Such requests have been granted when feasible because of the ongoing nature of the Deans' Grants Projects.

Challenges To Be Met

The task of training teachers, administrators, and other school personnel to deal effectively with handicapped students in the mainstream is too large to waste time in competition among departments and universities, needless duplication of materials that can be shared, and counterproductive ideas that could be productive if everyone were striving for the same goal. It is doubtful whether the politics and resources of the situation will ever permit widespread, comprehensive collaboration. Those institutions and organizations that wish to cooperate in a systematic way must (a) take a realistic look at the factors of communication, geographic location, competition, and resources; and (b) possess a true desire for collaboration.

Stedman and Smith (1977) clearly depict the consequences which can result from a lack of planning and cooperation among universities in North Carolina.

> If competition persists, if communications break down, if resources fail, then all our dreams about zero-reject communities, deinstitutionalization, mainstreaming, and just plain quality education will elude us. (p. 66)

It is the thesis of this paper that although communication may be difficult, resources limited, and the notion of territoriality ever present, the problems presented by the concept of interuniversity cooperation are exciting and worthwhile. The following challenges must be considered:

1. There must be a *seeking* of collaboration. Whether each project works in a cocoon of its own making or breaks out to collaborate with others may eventually be the measure by which its success is judged. The question may be asked, is the exclusive interest in one's project a cocoon from which there is little likelihood of emergence?

2. Once collaboration is sought, there must be *shared* responsibility by special and regular educators. It is true that special educators should provide leadership in the specifics all along the way. Regular and special educators' roles are complementary and both are vital to the successful implementation of equal educational opportunity. Eclectic views should be valued. With a view to the task ahead, it can be noted that more common than unique burdens exist. Sharing those burdens is the challenge. Whatever collaborative effort is attempted, two questions should be asked: Where are the special educators? Where are the regular educators?

3. Educators who are working for change must *understand* change processes. Even for those who wish to facilitate change, there often seems to be a naivete regarding the nature of resistance to innovation and change. A social-engineering approach is often used to effect change in lieu of a highly personal learning experience. A social-psychological perspective is necessary whether one is dealing at an institutional or individual level, otherwise the result is often simply ritualized planning. Meanings lie inside people and cannot be changed directly by outsiders (Combs, Avila, & Purkey, 1971). Since our own best efforts to facilitate change are often ineffective, the persons responsible for effecting change must be patient, persistent, and sensitive to the complex nature of humans and human institutions.

4. A final challenge calling for the recognition and acceptance of *interdependence* must be issued. Institutions and programs that are self-sufficient, independent, and autonomous can be made stronger by cooperation with other programs. Cooperation does not lead to a weakening of each effort and dependence of one program on another but to a collective effort of interdependence in which the force of one program is added to that of another because all are going in the same direction. Interdependence suggests a communality that negates a parochial, territorial view. There is no project, however successful, which cannot be made more effective with added cooperation from other projects. The real challenge is to find more effective means by which this collaboration can be further facilitated.

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A Collaborative Model for Curriculum Development in Teacher Education

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ABSTRACT. *The TEMPO (Training Educators for Mainstream Program Operations) project at George Peabody College for Teachers is an example of a collaborative approach to curriculum development in teacher education. The model which TEMPO developed is a process by which professionals from local education agencies and institutions of higher education engage in collaborative efforts to design and implement curricula to prepare pre-service and inservice teachers. The content of the TEMPO curricula are teaching strategies for effective mainstreaming. In this chapter there are offered guidelines for designing and implementing a similar collaborative effort. Discussion of the model includes a rationale, leadership skills needed, steps in implementation, potential problems or costs, and gains to be anticipated. The basic strategy of the model is an ecological and collaborative approach to curriculum development.*

A primary value of American culture in the twentieth century has been efficient productivity. Industries and businesses have emphasized "cost effectiveness," which means producing the best product for the lowest cost. Often, the result is that the "best product" represents a level of quality that keeps the consumer satisfied and buying but does not meet the highest level of quality possible. The assumption is that one usually must sacrifice a measure of quality for the sake of fiscal economy or efficiency in production. The governing value in business is increasing profits, which are assumed to be based on producing more quickly than competitors high quantities of a product that seems to satisfy a consumer need.

The prevailing cultural values related to production provide the sociocultural context in which a collaborative model for curriculum development in teacher education is proposed. There is increased pressure upon American public school systems to be cost efficient and accountable for their productivity (e.g., Lessinger, 1970). The values of business impact on the proposed model because they have influenced the American "educational market." One could assert that the governing values in education during the last 50 years have been more related to quantity and the marketability of "products" than to production of the highest quality possible. The attitude that quality need only be sufficient to satisfy the "consumers" seems to have penetrated the educational field in terms of the production of curriculum and textbooks, the preparation of teachers, and the standards for evaluating teacher and student performance.

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Recent events in America, such as the consumer rights movement, indicate a growing concern about quality which is accompanied by awareness that large quantities of efficiently and economically produced products are not meeting the critical needs of Americans. This concern for quality is affecting the consumer demands being placed upon public school education also (e.g., Cook, 1972). There is serious discussion now about demands for quality in teaching that will produce more capable graduates. As teachers face the public demand for greater accountability in teaching large groups of diverse children, including many with special needs, teacher educators are confronting, in turn, a need to provide professional development activities of a higher quality than often has been available (e.g., Lessinger, 1970).

The collaborative model for curriculum development in teacher education that is outlined in this paper evolved through the work of a team of teacher educators seeking to develop curriculum materials of the highest quality which could be used to enhance in preservice and inservice teachers the specific competencies necessary for effective teaching in mainstream classrooms. The model that evolved is not highly efficient or cost effective. A collaborative approach requires more time, effort, and money than existing alternative models for curriculum development. However, the model is designed to produce valuable process products as well as a superior end product. Through the collaborative curriculum development process used, the professional development of college and public school educators — administrators and teachers — may be stimulated and accomplished. In addition, the attitudes of the participants are expected to be modified toward mainstreaming, professional development activities, and the final curriculum product to be used in teacher education. Use of this model for curriculum development is predicated on the belief that the quality of the end product, as well as the products of the process, will justify the cost of the means employed.

A Definition and Rationale for the Collaborative Model

"To collaborate" means "to work together, especially in a joint intellectual effort" (American Heritage Dictionary). In this paper, "collaboration" refers to the united efforts of college faculty members and public school educators to improve, through teacher education, the curriculum and instruction in school systems. This collaborative model depends upon the cooperative efforts of various professionals with needed skills and perspectives addressing an educational problem, such as preparing teachers for mainstreaming. The collaborative process may be designed to produce more efficacious teacher education, identify needed instructional materials or strategies for classroom teachers, or construct a systematic curriculum.

A rationale for use of the collaborative model can be found in responses to the question of what is needed for curriculum development. The following paragraphs outline the rationale conceptualized by this author while designing a collaborative model.

RATIONALE

Three primary resources seem essential for teacher educators to produce a curriculum to prepare teachers: (a) the *creative thinking and insight* of the most experienced and skilled educators available; (b) *time* to carefully study and define the phenomenon or problem, identify needs and alternative ways of meeting them, experiment scientifically with selected alternative strategies and materials, and produce well-written curricula validated by careful evaluation of their results in field testing; and (c) *financial support* to buy the time of the needed resource personnel and materials. These resources are most needed when the educational problem being addressed is one like mainstreaming, which is relatively new and complex and for which there is no adequate body of field-based research from which explicit "answers" can be drawn.

The common vehicle for acquiring adequate resources for teacher-education projects are grants that enhance the insufficient investments which educational institutions can make independently. The principal enabling source of support for projects addressing the needs of teachers preparing to work with exceptional children in the mainstream has been the Deans' Grants.

THE COLLABORATORS

TEMPO (Training Educators for Mainstream Program Operations) is a Dean's Grant Project at George Peabody College for Teachers. It is an example of a collaborative approach to curriculum development in teacher education that involves educators in a local education agency (LEA) and in an institution of higher education (IHE). The collaborating local school system is Metropolitan Nashville:Davidson County Public Schools (Metro) that comprises about 4000 educators and 75,000 students. Peabody College is a small private institution totally devoted to a broad educational mission. The College is organized programmatically according to the professional goals of students. Programs for Educators of Children (elementary, early childhood, and special education) is the home base for TEMPO. Project activities are an integral part of program development at the B.S. and M.S. degree levels.

THE GOAL

The ultimate goal of Project TEMPO is to change teacher behavior in regular classrooms in order to improve the quality of education received by handicapped youngsters. The means for attaining that goal is a teacher-education curriculum for pre- and inservice teachers who will work with exceptional and nonexceptional children in mainstream classrooms. Project products will include guidelines for teacher-education experiences that successfully develop the knowledge and skill competencies necessary to provide appropriate educational programs for exceptional children in the mainstream. The curriculum will be based on a continuum of teacher competencies that are appropriate for both pre- and inservice teachers and includes all content areas of instruction in the elementary schools. Professional development and modified attitudes toward mainstreaming are expected to be products of the curriculum development process.

Guidelines for Developing a Collaborative Project

In the collaborative model, one party initiates the dialog regarding the possibility of a shared project but, once agreement to attempt the project is reached, full collaboration must begin. Initial collaboration requires shared responsibility for conceptualizing the project, writing the proposal for funding and/or allocation of resources from both institutions, planning for implementation, and evaluation. From the beginning, project ownership must be shared. That psychological set seems to be critical to the success of the collaborative model. The steps in establishing the set are as follows:

1. Establish the psychological set of shared ownership. To do so requires that the collaborative effort be based on a sincere desire for partnership in pursuing shared goals, and that the arrangement not be a manipulative device for securing funds. All participants must respect the skills and expertise each brings to the project, and all must believe that through the amalgamation of their skills and experiences optimal results can be achieved. Without this attitudinal and perceptual base, true collaboration cannot occur and the effectiveness of the process may be destroyed by declining motivation to participate, a tendency to compete more than to cooperate, and problems in interpersonal communication.

TEMPO began to evolve as a collaborative project in recognition of the fact that Peabody College and Metro schools share the goal of effective teacher education for mainstreaming and need the resources each can bring to the task. Peabody College faculty members sought collaboration with Metro personnel because of a strong belief that in order to produce superior teacher-education curricula for use in the public schools and on the college campus, both classroom teachers and college faculty had to be involved in the developmental process. Furthermore, to have the "creative thinking and insight of our most experienced educators" on the subject of mainstreaming, it was believed to be imperative that project planning and activities also involve administrators, consultants, and special educators from both the College and local school system.

2. Move from agreed-upon goals to the identification of specific objectives and tasks necessary for the accomplishment of the project goals. This step should be carried out by a planning group composed of a small number of professionals from each system.

In the TEMPO project, four basic tasks emerged from the interactive planning of 2 project leaders, 4 college faculty, and 4 school district administrators designated by the assistant superintendent of instruction and professional development. Those tasks were to (a) identify and validate teacher competencies necessary for successful mainstreaming; (b) design teacher-education curricula/experiences to develop the desired competencies; (c) field test on the college campus and in the district Teacher Center the curricula while continuing to validate the competencies; and (d) package the final curricula products for dissemination.

3. Outline the potential contributions of the LEA and IHE. The process of identifying resources, capabilities, and expertise reinforces feelings of mutual respect and interdependence. Table 1 shows the major contributions from both groups of educators as anticipated by the TEMPO planning group.

4. Analyze the tasks and identify individuals to assume specific responsibilities. In this process of dividing responsibilities, expectations must be communicated clearly and the interrelation of roles clarified so that individuals are comfortable with pursuing project activities. Subgroups may be formed for specific tasks with regular communication occurring among the groups. Generally, subgroups should be composed of equal representation from both the LEA and IHE. When group membership is more appropriate from one system only, frequent communication among the subgroups to inform and invite evaluative feedback is essential.

Theoretically, the design of the collaborative model requires parity in the investment of time, effort, and available resources by both systems. In reality, such equality often is not possible in the early stages of project development because previous commitments and work responsibilities preclude the time for extensive involvement. The important event to occur during this step is the careful examination of the resources available

TABLE 1

Major Contributions to Teacher Education Curriculum Development in a Collaborative Model

TASK	*LEA* Elementary Principals, Special Education Resource Teachers, Regular Classroom Teachers	*IHE* College-Based Teacher Educators from Elementary and Special Education Programs of Pre-service and Inservice Preparation
1 Identifying Competencies	- awareness of current teacher needs, concerns. - can identify master teachers who may demonstrate competencies needed.	- can more objectively study the process of mainstreaming to define "problems," needs. - can hypothesize critical teacher competencies based on research findings, survey of professional literature, and other teacher-education projects and programs.
2 Designing Teacher-Education Curriculum	- knowledge of successful teaching strategies already in use by teachers working with exceptional children in regular classrooms.	- can organize and augment input from classroom teachers to produce systematic sequences of curriculum and planned teacher-education experiences.
3 Field Testing, Ongoing Validation of Competencies	- can conduct mini-research, do case studies, test out proposed methods, and evaluate materials.	- can contribute resources and skills for research: collect data, observe, analyze and interpret data, provide feedback to teachers, train teachers to do research. - can provide curriculum specialists and experts on various exceptionalities as resource personnel.
4 Packaging, Dissemination	- can evaluate usefulness of drafted products to teachers. - can become gainful "consumers" of products.	- can be responsible for the final products, ongoing evaluation derived from accumulated feedback, revision, and dissemination.

and the explicit contracting with individuals for specific tasks. Thus, uneven work distribution does not create feelings of resentment. The first year of the TEMPO project illustrates this point.

Operationally, the TEMPO planning team functioned with the Peabody faculty members drafting ideas and plans and Metro team members giving relevant input/feedback that resulted in modifications or a "go ahead." Time constraints on the Metro administrators severely limited the extent of their participation and contributions, but they were invaluable in (a) sharing practical political information about their system; (b) providing guidance on who should be contacted, worked around, or worked through; (c) predicting teacher and/or administrator response to requests; (d) identifying and gaining Metro resources in support of the project; (e) planning to maximize the probability of success in the system, that is, minimizing resistance; and (f) sharing their understandings of the needs of teachers and the general climate in the teachers' world.

Peabody faculty members recognized the limitations on the availability of Metro team members and, also, the invaluable contributions they could make without high cost in time and energy. With shared ownership established, a "differentiated partnership" (Denemark & Yff, 1974, pp. 12-13) developed with equal participation in policy and decision making, and differential degrees of participation in project activities. Participation was determined by such factors as areas of expertise, other commitments, and availability for responsibilities. Maintaining consensus on expectations for individuals and roles prevented misunderstandings and negative feelings.

Project Leadership in a Collaborative Model

Skillful leadership is important, if not critical, to the success of any group endeavor to produce something. However, it may be even more essential to the success of a collaborative model because of (a) the greater need for leaders to facilitate the development of group cohesiveness when many individuals are relatively unknown to each other; (b) the likelihood that it will be more difficult to establish and maintain "smooth" organization and coordination of the project activities; (c) the distance between work sites (i.e., the college campus and public schools) which can contribute to breakdowns in communication; (d) the inevitable complexity of activities due to the large number of persons involved; and (e) the critical need for leaders to facilitate constructive interpersonal relations in a climate conducive to harmonious cooperation.

In a collaborative project, it is essential that project leadership be shared by leaders from all the major groups involved. In applying this principle to the development of teacher-education curricula, leadership should be shared by representatives of the IHE and LEA. They should hold positions of influence in their respective systems to facilitate the acquisition of financial support, access to resources, personnel, and approval for implementation as needed.

In the TEMPO project, leadership was provided by the director of the College pre-service programs in elementary and special education and by a teacher educator responsible for inservice education in the Metro school system. In addition, a leadership team made up of four persons from each system drafted proposals and plans as necessary.

DEVELOPING EFFECTIVE TEAMWORK

There are specific ways in which project leaders can create conditions for effective teamwork. TEMPO project leaders suggest the following:

1. Help the group to remain focused on the valued goal they share, for example, the improvement of educational opportunities for all children. It is the focus that creates the motivation to collaborate and erases territorial boundaries.

2. Intentionally create feelings of mutual trust and respect which, in turn, stimulate cooperative interaction.

3. Be certain that the project is organized and implemented in accordance with the principle of parity or differentiated partnership. Effective teamwork is dependent upon a spirit of parity, that is, upon the equal value and status of participating groups (e.g., LEA, IHE, and special and regular education). Parity must exist in planning, implementing, and evaluating. This principle requires equal investments and payoffs for all groups; greater costs or gains should not accrue for one subset of the total team unless they are agreed upon in the original project plans.

4. Clarify expectations for individuals, groups, and the total project. The unambiguous communication of expectations among all participants facilitates cooperation, productivity, and harmony. Leaders must watch for signs of misunderstanding regarding expectations. Intervening with appropriate clarification may prevent later dissatisfactions and conflict.

5. Foster the maintenance of an open climate. Effective teamwork usually occurs in a humanistic setting in which there is an open climate (Goble, 1972; Smith, 1975). This psychological setting recognizes the importance of dealing with feelings as well as accomplishing tasks. Minor irritations and affronts cannot be allowed to fester and undermine the collaborative process. In an open climate, differences are valued as debate and divergent thinking are encouraged to refine ideas and generate possible solutions to problems. Skillful leadership is needed to help the group(s) to recognize and deal with conflict and related emotions, especially when the daily responsibilities of the members of two groups are disparate, that is, classroom teachers give priority to direct services for children while college personnel give priority to teacher education.

6. Facilitate group organization and productivity by generating descriptions of alternatives, collecting needed information, assessing care-

fully the feasibility of project goals and plans, and identifying the strengths or expertise in project members around which the tasks may be organized.

SPECIFIC LEADERSHIP SKILLS NEEDED

Effective leaders approach project implementation with the skills of an excellent teacher. In fulfilling the aforementioned leadership roles, the most successful leaders seem to exhibit consistently eight critical behaviors:

1. Assessing and valuing individual differences among project participants.
2. Planning for success, providing meaningful reinforcements to each participant.
3. Providing skillful leadership with dispersed power and responsibility so that the project team functions as a democratic community with shared decision making in planning and evaluating.
4. Participating as an equal member of the group, serving as a model of desired attitudes and interpersonal skills.
5. Recognizing the ecological systems involved in the project and anticipating the disruptions that can produce tension and conflict. This recognition leads to the adequate preparation of individuals and groups for the project experiences. A sense of security is created by clear communication of the goals, plans, and purposes of and the expectations for the project.
6. Dealing with individuals as persons with feelings, needs, goals, strengths, and weaknesses. Effective leaders work *with* people, as contrasted with doing things *to* people.
7. Creating a supportive climate that is comprised of dependable assistance, adequate resources, nonthreatening persons, and circumstances allowing failure without penalty and rewarding experimentation.
8. Providing organizational leadership as needed to help the group establish timetables, work groups, specific plans for communicating among groups, and the like.

In reflecting upon the experiences of the TEMPO project and other collaborative efforts of IHEs and LEAs, three factors seem associated with success: (a) the project participants *focused on children* as the source of their motivation; (b) the project was based on *realistic goals* derived from a careful feasibility study of resources, needs, and cost; and (c) *shared leadership* was skillful in facilitating productive organization and harmonious teamwork.

Project Implementation

To implement the tasks necessary to accomplish project goals, a theoretical framework or set of philosophical/psychological principles must govern the selection of appropriate strategies. With a group-determined framework in mind, designated subgroups or individuals may select strategies that are compatible with those principles. For example, the TEMPO staff identified the following six psychological principles related to behavior change to guide the development of strategies to change teacher behavior relative to mainstreaming.

1. To effect lasting change in a behavior pattern that is to be independently sustained in a variety of situations (e.g., teaching behavior), the individual must make a *conscious decision* and effort to change.

2. The motivation to change a behavior pattern is the individual's dissatisfaction with how his/her personal needs are being met. Therefore, an individual's commitment to a program designed to produce behavior change is the result of perceiving the potential *personal rewards* and *relevance* of the program to his/her personal goals and needs.

3. The motivation for project participation is generated by the *involvement* of the individual in determining the specific goals and objectives of the project and how they should be accomplished.

4. Changing behavior is learning; *learning is best achieved by active participation that leads to meaningful rewards.* Reinforcement can be the individual's sense of success, the immediate usefulness and application of what was learned, praise from significant others, or positive feedback from the children being taught.

5. New patterns of behavior are shaped by *small steps* of successive approximation. Goals of major change must be achieved through objectives based on sequenced steps leading to the goals.

6. Individuals need to *feel supported* in their efforts to change; they need to know there are persons (e.g., principals, consultants, resource teachers) to help them and adequate materials and time to enable them to be successful.

THE IMPLEMENTATION OF TEMPO

The preceding principles guided the implementation of the TEMPO collaborative model. The major steps taken by the project leadership team in the process of project conceptualization, development, and implementation are as follows:

1. *Securing the endorsement of the school district with pledged equal support to the project,* that is, a commitment of comparable amounts of time in personnel, materials, and other available enabling resources.

2. *Obtaining the consistent involvement of key public school administrators during the planning and implementation years of the project.* The assistant superintendent of instruction and professional development appointed the following key decision makers to the TEMPO team: coordinator of special education, director of the elementary program and staff development, coordinator of pre-service teacher education, and coordi-

nator of professional development programs. The district's director of research also was involved when it was appropriate.

3. *Selecting project personnel to include equal numbers of educators from the LEA and IHE and equal representation of special and regular educators.* The project director, who had to be a member of the college faculty because of grant conditions, and the project administrator, who was from the public school system, functioned as project leaders. The participation of the other eight members of the project leadership team was solicited for all decisions relating to planning, implementation, and evaluation.

4. *Surveying teacher needs and feelings* regarding mainstreaming and attitudes toward various ways of gaining assistance in meeting those needs. Interactions with the leaders of the local professional education association, which is extremely powerful politically, resulted in a cooperative effort to structure a questionnaire for which the teacher association assumed the responsibilities for dissemination and compilation of responses. The association also made its data files available to the project staff. Politically, it was critical that the project leaders work through the powerful teacher association to develop a project to meet teacher needs.

5. *Selecting two schools willing to become models of effective mainstreaming.* LEA members of the project leadership team advised the group on the selection of two sites and the procedures to follow to obtain approval of the plans. Principals were regarded as the critical factors to the success of the effort so the selection was based on probable support from the principals. After a positive response was secured from the principals, the project plans were described to both faculties and their responses were invited. A secret ballot was taken to guarantee the opportunity for teachers to freely express support for or dislike of the idea of trying to become a model school for mainstreaming and working with the TEMPO project. The tallied ballots indicated 100% support in one school, 95% in the other.

6. *Adding the school principals of the two sites to the project team* to encourage their participation in project planning and leadership in the implementation. This act was intended to extend shared ownership of the project.

7. *Identifying teacher needs, special interests of individuals relevant to the project, participants, and potential rewards for participation in the project.* Out of the interactive process of assessing teacher desires, plans evolved for eight hours of tuition-free graduate study as part of the project, with a preschool workshop and weekly follow-up sessions throughout the year. The instruction was equivalent to two courses provided on the Peabody campus. In addition, a support system was established that included (a) the availability of the project administrator as a channel of communication to the project team members and as an immediate source of assistance; (b) the provision of practicum students and student teachers in classrooms as requested; and (c) faculty persons serving in the role

of consultants to teachers on problems they identified. Twelve curriculum development teachers were identified through self- and peer nomination. These teachers were released two days a month to participate actively in TEMPO curriculum development.

8. *Establishing subgroups for task accomplishment;* for example, Peabody faculty members to work with the curriculum development teachers in surveying the professional literature and compiling information useful to classroom teachers. Ultimately, these groups will participate in more advanced stages of curriculum development.

9. *Preparing curriculum development teachers to become more active leaders in their schools* by sharing information and providing leadership to inservice activities within the schools. The curriculum development teachers also will be invited to conduct workshops in the district Teacher Center. College faculty members have offered support and training in such efforts upon request.

10. *Developing a mechanism to facilitate extensive collaboration between the Peabody faculty members in special and elementary education and the school system administrators and teachers* in drafting curriculum guidelines and developing materials. Curriculum teams are composed of College faculty members and students, curriculum development teachers, and special education resource teachers. The teams will be responsible for drafting teacher-education curricula.

11. *Planning for the refinement of the drafts of teacher-preparation units and packaging them for systematic field testing* in college pre-service courses and school district inservice courses (revision occurring as a result of continuous feedback).

12. *Planning for the dissemination of the final products and implementation of a design for ongoing evaluation.*

AN ECOLOGICAL APPROACH TO IMPLEMENTATION

An equally important principle governing TEMPO project implementation is the belief that the collaborative project must be regarded as acting on and involving ecological systems. Failure to recognize this fact could severely impair the collaborative model or make it counter-productive (Kaufman, 1972; Smith, 1975). Attention to this principle influences project planning and implementation in two ways:

1. Project leaders recognize the individuality of the persons with whom they work and view each person as a member of an ecological setting that creates a psychological gestalt that influences the person's responses to the project.

2. Project leaders who are aware of the ecological systems are able to predict potential interactions between system elements and the individuals engaged in project activities. For example, in preparing for after-school inservice sessions, the planners consider the possible entering

state of the individual teachers after a day of teaching and the psychological pressures each may feel in anticipating going home (e.g., feeling a need to get home in order to have dinner on time, planning how to get groceries expediently on the way home, or hoping that a sick daughter has managed well at home alone that day). Another example is awareness of other responsibilities competing for the time of the college faculty member asked to participate actively in curriculum development, and of the meaningful rewards attached to other professional activities (e.g., the individual's need to conduct some research and to publish more articles in order to be considered for tenure status).

Project leaders must use information about the psychological gestalt of the individual's world in order to maximize motivation through rewards for the project participant and to minimize resistance-producing conflict between the individual's internal needs and the external requests of project leaders. Awareness of the interactive relations between the elements of the psychological worlds of the individuals and of the group contributes to more effective planning and implementation.

Sensitivity to the interdependent and interactive nature of ecological systems is critical, beginning with the initial contact between the institutions regarding possible collaboration. There is constant tension in a human system which is generated by potential or actual conflict between the needs of the individuals and those of the total group, and between possible changes and the established methods of meeting needs. Individuals strive to maintain stability in the system (e.g. the smooth, reliable operation of an educational program) while they also capitalize carefully on opportunities that promise increased success for individuals and the system in achieving goals. In educational systems, the primary goal is to provide excellent educational experiences for students. A teacher-education project will meet resistance to the extent that it threatens the stability of the school's psychosocial system and does not facilitate the attainment of its goals through direct services to students, helping teachers to be more effective, or improving the working conditions for teachers and students.

It is useful to remember that a project requiring a considerable investment of participants' time and energy threatens the stability of a system and/or the psychological worlds of the individuals. The basis of this threat is the fact that individuals or groups have limited resources of time and energy; maintenance of what exists seems to require all the time and energy individuals believe is available, and they are aware that channeling time and energy to an additional project necessitates a reduction elsewhere in the system. Therefore, before entering an ecological system with a proposed project, one must become cognizant of the structure of the system and the competing external pressures and personal needs felt by individuals and groups. With that knowledge, meeting those needs and providing appropriate rewards can be incorporated into the project.

If it is at all possible, project leaders should design methods to influence the elements of the ecological systems to increase the external reinforcement and intrinsic motivation of individual participants. Because of the individual's desire for job security and the recognition or advancement associated with the evaluation of professional performance, administrative support for the project is important. The more visible and strong the support is, the more individuals will be motivated to participate. In working with classroom teachers, a project needs the support of principals who will provide reinforcing feedback and enabling support in time, materials, and assistance. District policies that encourage profes-

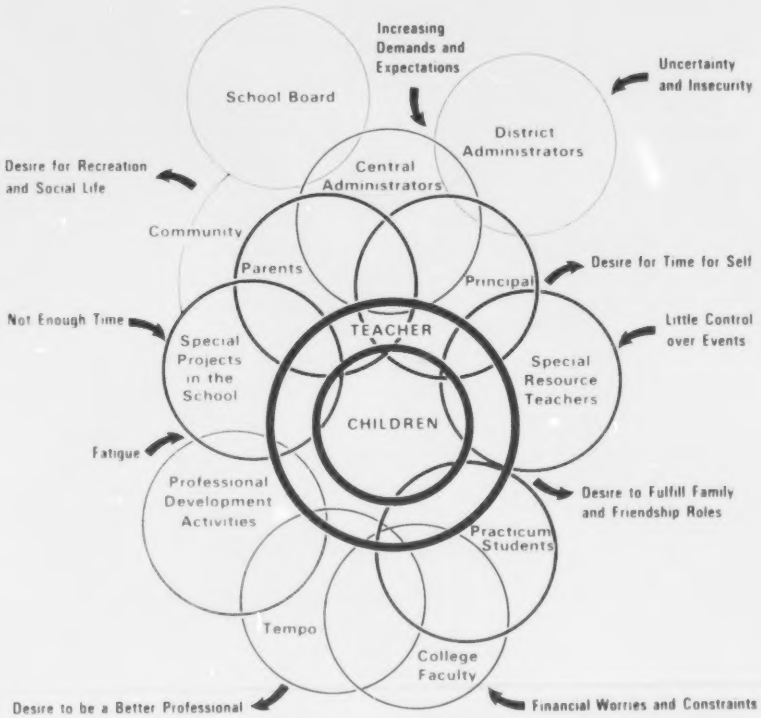
Increasing Demands and Expectations
Uncertainty and Insecurity
School Board
District Administrators
Central Administrators
Desire for Recreation and Social Life
Community
Parents
Principal
Desire for Time for Self
Not Enough Time
Special Projects in the School
TEACHER
Little Control over Events
Special Resource Teachers
CHILDREN
Fatigue
Professional Development Activities
Desire to Fulfill Family and Friendship Roles
Practicum Students
Tempo
College Faculty
Desire to be a Better Professional
Financial Worries and Constraints

Fig. 1. The ecology of the teacher's world. Circles represent major components of the typical teacher's world in local schools of Nashville. Inward-pointing arrows represent psychological pressures that are perceived as largely out of the teacher's control. Outward-pointing arrows represent the strong needs felt by the teacher.

sional development activities and central administrators who reward principals and teachers for participation in such activities should be sought by project leaders. In working with college faculty, the same type of support is needed: administrative endorsement of the project and recognition of participants with a clear relationship between project participation and the reward system operating. If individuals receive greater rewards for alternative professional activities, then there will be no motivation for dependable project participation.

Figures 1 and 2 illustrate the elements of the complex ecological systems comprising the psychological worlds of the classroom teacher and the college professor, as perceived by the TEMPO project leaders. Although diagrams would vary for individuals, the degree of commonality is remarkable. The overlap of circles indicates a base of interaction and

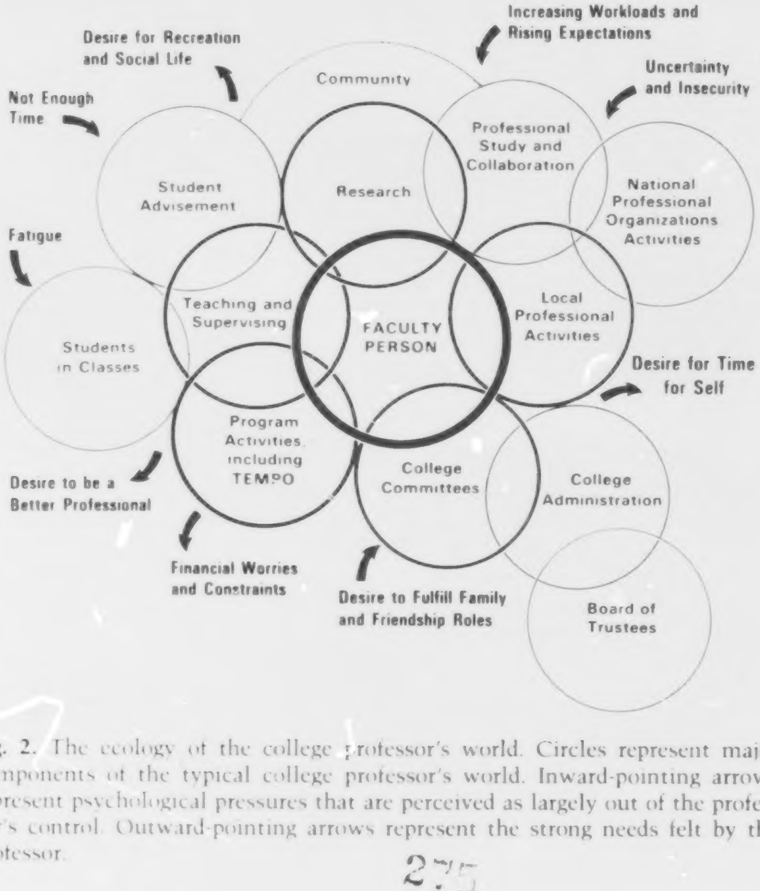
Increasing Workloads and Rising Expectations
Desire for Recreation and Social Life
Uncertainty and Insecurity
Not Enough Time
Community
Professional Study and Collaboration
Student Advisement
Research
National Professional Organizations Activities
Fatigue
Teaching and Supervising
FACULTY PERSON
Local Professional Activities
Students in Classes
Desire for Time for Self
Program Activities including TEMPO
College Committees
College Administration
Desire to be a Better Professional
Financial Worries and Constraints
Desire to Fulfill Family and Friendship Roles
Board of Trustees

Fig. 2. The ecology of the college professor's world. Circles represent major components of the typical college professor's world. Inward-pointing arrows represent psychological pressures that are perceived as largely out of the professor's control. Outward-pointing arrows represent the strong needs felt by the professor.

the arrows suggest the psychological pressures felt by the individual. The direction of each arrow indicates whether the pressure originates primarily from within or outside the individual.

Although such representations may contain a high degree of error, diagraming the ecology of the individual's world serves to sensitize project leaders to the complexity of that world and to the relative position and significance of the project in it. When project leaders devote their time and energies primarily to a project, it is easy to expect equivalent commitment and investment from all participants.

The potential power of the collaborative model is closely related to the principle requiring awareness of and planning for impact on ecological systems. Obviously, if a project influences an individual through more than one element of his/her psychological world, the probability of success is increased. That probability is significantly increased also by the provision of reinforcement for project activity from multiple sources within the ecological system.

It is important to remember that the ecological system is a dynamic body of forces in which pressures shift in focus, as do sources of reward or relief. Skillful project leadership and implementation, therefore, require sensitive monitoring of the elements of the systems so that activities are planned to bring reward or relief to individuals and do not contribute to tensions, conflict, and pressures. Failure to be aware of and to deal with ecological systems, perhaps, has been the primary cause of failure for educational interventions. The most salient example is the lack of lasting impact created by the typical inservice workshop or class which is detached from the rest of the teacher's psychological world and fails to provide systematic reinforcement for the application of the teacher-education experience within the ecological system of the school. Most teachers leave inservice activities to return to a school environment that tends to reinforce established patterns of behavior and tends not to support the efforts of individuals to change (Edelfelt & Johnson, 1975; Young, 1977).

Evaluating the Outcomes of a Collaborative Project

Evaluation of the collaborative model must occur at two interrelated levels: (a) the quality of the products and (b) the cost effectiveness of the model. When the final product is teacher-education curricula to be disseminated, a summative evaluation clearly is needed to determine the extent to which the product is superior or competitive. Then the final product must be re-evaluated in relation to the cost and products of the process to determine cost effectiveness. High costs must be offset by high gains for the collaborative approach to be considered cost effective. This determination can be called a "within model" evaluation.

In addition, there must be a "between models" evaluation of the experimental and alternative approaches. Such an evaluation compares both the products and the cost effectiveness of the processes. If the costs are higher in the collaborative effort than in alternative models, the gains also must be higher in order to justify its use. If the final curriculum product is not superior to those produced by alternative methods and the process is more costly, compensating gains in valuable process products would have to result to warrant any use of the collaborative model.

The use of the collaborative model is based on the expected outcomes of highly valuable final products and products of the process. The philosophical base of the model tends to place equal value on both outcomes — process products and final products. At the time of this writing, an evaluation of the final and process products of the TEMPO project is still incomplete. However, preliminary evaluations of the costs and gains or products of the collaborative process can be shared.

COSTS/GAINS IN THE COLLABORATIVE PROCESS

The costs of a collaborative model are rather obvious. The number of persons involved increases the financial cost of the project, considerably extends the amount of time required, and results in a significant amount of additional energy expended in the interpersonal relationships necessary for collaboration and getting people together for project activities. The process lacks efficiency, for example, when teachers' research or writing skills are weak and project leaders must invest considerable time and effort in teaching them research methods or editing their written work. Project leaders also must be willing to accept a loss of control over project activities and consequent productivity. This loss results from the distribution of responsibilities to individuals of varying competence and to a lack of control over many or most of the elements of the ecological systems involved (e.g., pending board action on salaries, administrative reorganization of the operational structure of the school, or declining enrollments with potential loss of faculty).

The costs of time, efficiency, and control may be strongly offset by specific gains from the process. The collaborative model for curriculum development in teacher education is capable of producing some invaluable products of the process. TEMPO project personnel have identified numerous examples of gains derived through interactions between the IHE and LEA:

1. Through involvement in the project from its inception to completion, the school system may come to view the IHE as a valuable resource to facilitate the attainment of their goals, that is, as meeting the needs of teachers and children in the school system.

2. Commitment and motivation to develop teacher-education programs within the school system may be increased for both IHE and LEA professionals through participation.

3. Leadership personnel in the school system appreciate the assistance of colleagues in higher education, and the classroom teachers anticipate assistance and empathy with their daily problems.

4. More positive attitudes may be fostered in school district personnel toward planned inservice activities which are based on the teacher-education curriculum.

5. Participating teachers and schools gain better understanding of the on-campus pre-service college curriculum and provide more appropriate field sites for practica.

6. Enriching and enabling relationships can be developed between district and college personnel. Mutual respect develops as the professionals from each system become aware of the strengths and weaknesses each possesses. A spirit of complementary teamwork evolves out of the awareness that no one has all the resources or all the answers.

7. College faculty members become more knowledgeable about the current problems classroom teachers face, more aware of the skill development teachers need, and better able to evaluate accurately the relevance of on-campus instruction to the realities in the field. They also benefit from more visibility in the schools, which may attract students to graduate courses on campus or result in further opportunities for collaboration and consultation.

8. Classroom teachers gain more than specific assistance from this collaboration model. They benefit from being treated as valuable sources of professional information, capable researchers, and creative problem solvers. In this process, their levels of awareness and thinking regarding a problem, such as mainstreaming, are gradually elevated through interaction with colleagues of varying degrees of experience and expertise. Often, just the increased awareness and higher level of thinking in relation to problems result in intrinsic motivation to learn more and to further develop specific professional skills.

Another positive outcome of this collaborative process is a spirit of teamwork, heretofore rare in LEA-IHE relations. The teamwork is facilitated by shared ownership of the project and the fact that no one is begging for cooperation or making sacrificial contributions toward the singular gain of the other. In contrast, both parties in the collaborative model anticipate respective costs and gains and view the project outcomes as dependent upon mutual cooperation and the integration of the best contributions each member can make.

POTENTIAL PROBLEMS

Of course, the success of any model is dependent upon the skills of the individuals implementing that model. The TEMPO staff has identified several problems they created or encountered which may be useful to persons planning a similar collaborative project. The problems can be divided into two types: (a) errors in judgment from which they learned, and (b) "unavoidable problems."

The project team reported the following decisions or actions as errors in judgment that will influence the planning of future projects:

1. Providing eight hours of tuition-free graduate college coursework in the school in response to teacher requests. It seems it would be more advisable to provide intensive instruction during the summer with frequent but minimal follow-up instruction on an individual or small-group basis during the year. Teachers found the requirements for the completion of the coursework too demanding to undertake on top of full days of teaching. Fewer than half of the teachers seized this opportunity once the amount of effort required was known.

2. The failure of the project team to stress the principals' roles as leaders, not just supporters, of the project and to make clear the expectations for their leadership roles. Principals tended to "not interfere" with project activities and to separate their identities from the project when discontented teachers raised challenges. Since principals are a primary source of professional reward for teachers, the perceived lack of principal involvement in project activities and the absence of reinforcement for teacher participation decreased project participation by a significant number of teachers. Probably, the motives of the principals were to avoid conflict or to reduce tension in the school environment. More aggressive leadership from them would have increased teacher motivation to participate.

3. The project team overestimated the level of teacher interest and skill in surveying the literature about exceptionalities, researching methods of teaching exceptional children, and extrapolating and evaluating the information to be integrated into a useful form for classroom teachers. This error occurred at two points: with the curriculum development teachers and in the course instruction.

4. The amount of time required to implement such a project was grossly underestimated; it was understood that collaboration would require more time, but not the amount that eventuated.

5. College faculty members assumed that classroom teachers would perceive a relation of collegiality with them when the college faculty stressed their perception of equal roles as partners in problem solving. The classroom teachers continued to hold the professors in distant high regard and found it difficult to question or challenge them. This problem was exacerbated by the role of college faculty members as instructors in courses that necessitated the evaluation of teachers in the performance of TEMPO class activities.

6. The project team did not assess accurately what it could do with the given amount of time, money, and human resources. The expectations of the project leaders and classroom teachers were set far too high, which resulted in a tendency to be disappointed in the accomplishments. Es-

sentially, the project leaders from the college tended to promise to solve all problems and to be all things to all teachers. Although this promise was not intentional, it was an obvious outcome of the eagerness to be responsive to teachers' needs.

Certain problems seemed to be unavoidable, to a considerable extent:

1. The preschool workshop failed to generate high motivation for project participation. The primary reason was the reactions of the teachers to the content of the workshop. The teachers were more interested in practical, how-to-do-it kinds of activities for use with children than in information about exceptionalities or alternative strategies which they perceived as belonging to special education and not useful in a regular classroom. Also, the collection of data (numerous tests and inventories) for project evaluation during the workshop created some strong resistance and negative attitudes. The tests apparently made some teachers feel inadequate and threatened their sense of professional self-esteem. In short, conflicting needs and goals impaired attitudes toward the project.

2. Support systems for teachers were not used as planned. Classroom teachers were provided college practicum students and student teachers during the year in order to facilitate further exchanges of information and skills. The student teachers were dual majors in special education and elementary education and they were expected to model many of the skills the classroom teachers were seeking to develop. Unfortunately, classroom teachers tended to work apart from the student teachers and to send practicum students out of the room to work with children. The teachers also did not make adequate use of the college faculty as "consultants." It appeared that teachers did not have enough information to identify the problems and raise the questions expected or, perhaps, lacked the experience to use consultants. A lack of time for consultation was reported by the teachers also.

3. Most unavoidable was the problem of an insufficient amount of time (two years) to accomplish the types of changes desired. Changing teacher behavior and attitudes is truly a slow, laborious process, costly in time and effort.

Summary

Members of the TEMPO project firmly believe in the superior value of the collaborative model. They claim that most teacher-education efforts at the inservice level have failed because teacher educators have attempted to impose a curriculum on district professional development staff, principals, classroom teachers, or college faculty. TEMPO staff members believe that professional development must begin within the individual. Because of the collaborative process employed, professional growth has been stimulated within TEMPO participants and the curriculum products will reflect the teachers' perspectives, expertise, and individual needs.

Furthermore, in the process of collaboration in the field, the theories of the college faculty have been modified *again* by reality — the extreme diversity of student needs and the complexity of daily classroom management. The faculty members will be better campus-based teacher educators as a result of this experience.

Active involvement in the development of teacher-education curriculum creates an ownership that motivates inner-directed professional development. An example of this valuable process product in TEMPO is the leadership potential developed in the curriculum development teachers. They undoubtedly will contribute to the improvement of curriculum and instruction in their two schools in the years to come. Most, if not all, will pursue professional development activities to continue the growth begun through TEMPO activities. Feedback from them indicated that teachers learn best by doing, that is, by researching, synthesizing, integrating, applying experimentally, evaluating, and sharing. They found active involvement to be far more meaningful than class instruction offered.

Indeed, the *process* of TEMPO may make a more significant contribution to teacher education than will the final *product!* Specifically, the desired change in teaching behavior may occur more in classroom teachers who participated in the process of curriculum development than in those teachers who will attend future workshops based on the curriculum guides, the final products. The process certainly has contributed to the development of an improved pre-service curriculum and to the professional development of College faculty members; seemingly, neither could have been matched in quality by alternative methods.

In conclusion, it must be said that the easiest procedure to follow in developing teacher-education curricula is to use the "bought-off time" of college faculty members to survey the professional literature and existing materials, synthesize relevant information, and draft curriculum packages for use by other college faculty members in pre-service elementary methods courses and in LEA inservice activities. The collaborative model, as exemplified by TEMPO, is costly in time and effort. However, it promises a better product, more widely and effectively used, as a result of the involvement of teachers in a joint effort with college faculty throughout the process of curriculum development. The valuable products of the process, in terms of the professional development of college faculty and local school personnel, justify further the investments in this methodology.

Even if an equally useful curriculum for inservice teacher education could be developed on a college campus, it would have to be "sold" to school personnel. Even if a sale were made, the psychological response to using the curriculum and learning from it would be significantly different from the response to a curriculum which is the result of a process involving teachers from its inception to completion. The same phenomenon exists with college faculty. For the effective use of a pre-service curriculum to occur, individual faculty persons must share in the ownership and be intrinsically motivated to develop new professional competencies. This phenomenon is true of faculty persons with intense devotion to principles of academic freedom.

The results and impact of a collaborative project such as TEMPO are not immediately known. Benefits are expected to continue to accrue for years beyond the life-span of the funded project, which will indicate professional growth resulting from the participation of individuals in the project. The most immediate payoff can be in the form of a true integration of the efforts of college and school-based teacher educators in planning and providing teacher-education experiences. That is certain to be a more valuable outcome than a highly polished curriculum package which may stay on the shelf and never be used because of a lack of teacher interest in the product!

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Section 5

Common Concerns in the Implementation of Deans' Grants Projects

Despite the commonalities in goals, strategies, and problems, most Deans' Grants Projects display considerable creativity in the kinds of activities which have been developed to implement their purposes. It may be that the innovative nature of the Deans' Grants has permitted schools or colleges of education the opportunity to exercise the creative capacities that have been dormant heretofore because of the lack of enabling funds.

The papers presented in this section represent some of the unique activities undertaken by various projects to address areas of common concern: teacher competency, project structure, materials development, and project evaluation.

Rader offers a compendium of competencies for regular classroom teachers. A number of projects have used the results of this study to guide their own efforts in the areas of curriculum revision and faculty development. Certainly, teacher competency is a common concern for all institutions that are attempting to promote changes in teacher-preparation programs to better meet the implications of the concept of least restrictive environment, with or without the help of Deans' Grants.

The paper from North Carolina-Chapel Hill, although it addresses many of the same goals as other projects — changes in faculty attitudes, skill, communication patterns, curriculum offerings, and collaborative efforts — describes a different approach to project structure. Using the principles embedded in Public Law 94-142 as a framework, the project has been organized around a series of behavioral objectives for which associated tasks and strategies have been developed. Thus, a unique structure is applied to common goals.

Baker's paper discusses an unusual approach to the development of instructional materials for use in teacher-preparation programs. Although materials development is a concern common to many projects as well as other teacher-education programs, the statewide approach adopted by the University of Northern Colorado is unique among the Deans' Grants Projects.

Last, the University of Wisconsin-Whitewater presents a discussion of evaluation, a topic which has become of increasing concern to institutions involved in teacher education. The uniqueness of the purpose of the Deans' Grants compounds the problems of evaluation, yet all projects must be concerned with the documentation of their efforts. This paper addresses, in particular, the problem of evaluating our eventual products – the pre-service regular education teacher.

Competencies for Mainstream Teachers: An Analysis

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ABSTRACT. *A nationwide search for teacher competencies in mainstreaming handicapped pupils was conducted to assist the Deans' Grants Projects in curriculum development. Lists of such competencies were requested from all projects that were developing pre-service programs for regular classroom teachers. The listings and a thorough review of the literature yielded 13 categories. An analysis was conducted to determine the relation of each competency area to the mainstream classroom experience.*

Project Activities

In June 1975, the College of Education, Michigan State University, received a three-year Dean's Grant to plan, develop, and implement a program to prepare pre-service teachers to provide educational services to handicapped pupils in the curricular areas of Vocational Training, Industrial Arts, Health, and Physical Education and Recreation. The project consisted of three phases: (a) Year one was devoted to planning to determine how pre-service programs could be modified, what modifications were necessary, and the manner in which these modifications could best be made. (b) During year two, necessary curriculum materials and course outlines were developed. (c) The focus of year three was the implementation of all the materials and courses previously developed.

During the first year of the Dean's Grant Project, it was determined that the methods and materials developed should not be limited solely to curricular areas identified in the original proposal. Thus, the project goal was extended to include the development of programs appropriate to all teacher-education pre-service curricular areas.

A rationale was developed that covered nine areas of teacher competencies which were important for all educational personnel teaching in mainstream classrooms. Further, a statewide assessment of the extent of mainstreaming was conducted. The assessment indicated that large numbers of students with special needs were being placed in mainstream settings although few teachers were adequately prepared to work with them.

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The nine competency areas are (a) the nature of mainstreaming; (b) the nature of handicaps; (c) attitudes; (d) resource and support systems; (e) learning styles; (f) teaching strategies and methodology; (g) curricular and spatial modification; (h) communications; and (i) evaluation. The competencies included some that are normally incorporated into most teacher-preparation programs. These competencies were retained to emphasize the specific skills needed by teachers who are prepared to teach nonhandicapped as well as handicapped students.

DATA COLLECTION

Throughout the planning year, project staff continued the search for a comprehensive listing of competencies that teacher-education institutions could use as a guide in developing programs for their Deans' Grants Projects. After the review of the literature, it was concluded that although mainstreaming is not a new concept, little had been done to identify the specific competencies needed by regular classroom teachers to provide educational services to handicapped as well as nonhandicapped students.

Two publications were helpful. Haberman (1974) evaluated the 1972 graduates of the School of Education, University of Wisconsin, to assess the competencies which the teachers thought were necessary for adequate job performance. The survey also attempted to assess the competencies that were not adequately covered in the current teacher-education program at the institution. The findings indicate that the teachers felt that they were prepared, at least to some degree, in methods of dealing with emotionally disturbed, learning disabled, and mildly retarded pupils, but that they were not prepared to diagnose specific learning disabilities, although the skill was an important one for teachers working in mainstream settings. Goldman and Masla (1976), co-directors of the project, "Mainstreaming Preparation for Regular Educational Personnel," at Ohio University, identified a set of competencies and objectives needed by regular classroom teachers to effectively accommodate exceptional children in the regular classroom. The goal of the Ohio project was to develop a competency-based teacher-education program to provide personalized preparation in mainstreaming exceptional pupils for trainees in regular education. The emphasis of the competencies that were identified include (a) orientation of regular education personnel to mainstream placements of exceptional children; (b) introduction to exceptional children; (c) human relations; (d) classroom management in the accommodative classroom; (e) curriculum and instructional materials for the accommodative classroom; (f) diagnosis and evaluation methods for the accommodative classroom teacher; and (g) diagnostic-prescriptive teaching for the accommodative classroom teacher.

In order to further the work in competency identification, the Dean's Grant Project at Michigan State University undertook a nationwide search for competencies. With the assistance of the National Support Systems Project, University of Minnesota, a letter was sent to all Deans' Grants project directors identifying the intent of the search and stressing the usefulness of a comprehensive competency listing. The response was excellent; all but five projects responded. Because of the diversity of the Deans' Grants Projects, not all were involved in the development of programs in all areas of pre-service teacher education. Rather, many were specific in nature, focusing on a limited number of curricular areas. From the responses, 13 competency listings were identified as applicable across all curricular areas within pre-service programs in mainstream education. These listings formed the data bank for the remainder of this investigation. The listings were submitted in various forms, from raw survey data to completely stated competencies.

Upon receipt of the competencies, the initial task was to conduct a content analysis to identify potential groupings. Thirteen major categories were identified: (a) the nature of mainstreaming, (b) the nature of handicapped pupils, (c) attitudes, (d) resources, (e) teaching techniques, (f) learning environments, (g) learning styles, (h) classroom management, (i) curriculum, (j) communication, (k) assessing student needs, (l) evaluating student progress, and (m) administration. Once the major categories were identified, the tedious chore of grouping individual teacher competencies within each category was undertaken. When duplications were found among competency listings, the competencies were rewritten to keep the major intent and to reduce overlap. In most cases, the format, as written by the initial author, was retained to insure that the original intent of the competency was not modified or lost through a rewriting process.

Analysis

To analyze the teacher-education competencies needed by mainstream teachers, it is necessary to identify not only the competency but, also, the rationale for it. What follows is an analysis of the content and rationale for each of the 13 categories of teacher competencies identified by the Deans' Grants Projects. It is evident from the analysis that the various categories are not mutually exclusive. Interrelations exist among competencies within categories; for example, competencies relating to curriculum are found under more than one category, such as resources and curriculum.

THE NATURE OF MAINSTREAMING

The teacher competencies identified under the heading, "the nature of mainstreaming," include (a) defining the concept of mainstreaming,

(b) developing a philosophy for mainstreaming, (c) developing a rationale for mainstreaming, (d) obtaining knowledge of mainstream legislation, and (e) describing and identifying delivery system models. Although much has been written about mainstreaming, the concept tends to be confusing to most classroom teachers.

Most of the confusion relates to determining what mainstreaming is and what it is not. Currently, teachers are mystified by the fact that there is no one universally accepted definition of the concept. The definition varies from the extreme of eliminating separate special education classrooms altogether, thus placing all handicapped pupils, including those who are severely multiply handicapped, into regular classrooms, to mainstreaming on an individual basis, that is, placing students in the regular education classroom for only a portion of the day and keeping them in special education classrooms or separate buildings the rest of the time. Whatever the definition and philosophy of mainstreaming held in a particular state or region, the classroom teacher working in a mainstream classroom with handicapped children must have guidelines to follow.

Regular classroom teachers and special education teachers tend to be at a loss when they are asked to give the rationale for mainstreaming and to describe the benefits derived from the regular classroom placement of handicapped students. Classroom teachers receive much information about mainstreaming through professional publications and state education agency newsletters. However, complicated information of this nature, stressing philosophy and law, needs to be interpreted for teachers, with the emphasis on explaining the "why."

Teachers need to know how mainstreaming came about, why it occurred at this particular time, the research that has been conducted, and the impact of mainstreaming on handicapped and nonhandicapped classroom students. Moreover, classroom teachers may find it useful to conduct their own research to support their classroom efforts. In order to conduct reliable research, they may need to identify research and evaluation consultants or other such support personnel within their school districts.

Teachers need to know the legal basis, that is, the laws (federal and state) that are applicable to their specific disciplines and to mainstreaming in general. The knowledge of state and federal legislation allows teachers to identify their responsibilities and obligations to handicapped students. This knowledge can alleviate some fears, including the fear that a handicapped student may cause bodily harm to himself/herself or to other students.

In order for regular classroom teachers to provide adequate educational services to handicapped pupils, they must know what resources and assistance are available to them. Among the delivery system models that classroom teachers need a working knowledge of, are (a) the resource teacher model, (b) diagnostic-prescriptive teacher model, (c) consulting teacher model, and (d) teaching-by-objective model. Within the content of mainstreaming it is important for teachers to understand the extent to which they can rely on specific kinds of supportive assistance from consulting teachers, itinerant teachers, and special education teachers within their home schools.

THE NATURE OF HANDICAPS

In addition to the fact that many classroom teachers do not have full knowledge of the meaning of mainstreaming handicapped pupils or of their rights and responsibilities to handicapped and nonhandicapped students, a general fear of handicapped students exists among them because they are unaware of the types and capabilities of handicapped students. Therefore, it is imperative that classroom teachers in mainstream settings have a thorough knowledge of the cognitive, affective, and psychomotor characteristics of the handicapped students with whom they must interact. Since mainstreaming focuses on those special education students who can benefit from regular classroom placement, teachers need knowledge of the causes of various impairments (mental retardation, emotional disturbance, learning disabilities, sensory impairment, and speech and language impairment), and of the extent to which an impairment limits a handicapped student within the regular classroom setting. Emphasis should be placed, however, on the positive abilities of handicapped students in relation to the physical environment, intellectual environment, and social values system in the public schools. The extent to which a handicapped child is mainstreamed depends largely on the limitations imposed by his/her handicap. As part of awareness training, all teachers should have knowledge of the limiting factors of specific handicaps and of ways to plan individual educational programs for handicapped students so such students can participate more meaningfully in the regular classroom.

ATTITUDES

In order for regular classroom teachers to adequately deal with attitudes in the classroom, they first must have knowledge of existing attitudes among handicapped and nonhandicapped students, their parents, and teachers and administrators within the school system. Information of this nature can be obtained by the teacher through formal and informal evaluation. Once the attitudes have been identified, it is then imperative that the teacher learn how to cope with adverse attitudes and how to modify attitudes when necessary — for example, to create a positive learning environment. Research has shown that attitudes are created by knowledge or the lack thereof; the more knowledge a person has about a subject the stronger is his attitude toward it. Therefore, the more information provided to students, parents, and staff about handicapped children, the more likely it is that a strong positive attitude will emerge.

Teachers need to understand the effects of expectations and stereotyping on students' responses, learning, and relationships. Knowledge of the negative effects of labeling or classifying persons by handicap may help to reduce the identification of individuals by some physical or mental capability or limitation. To counteract labeling, the teacher must develop warm, interpersonal relationships and demonstrate an openness with all students. The ability to assist handicapped students in the mainstream, to overcome feelings of inadequacy, fear of failure, frustration, and hostility, is one of the main challenges to any classroom teacher.

RESOURCE AND SUPPORT SYSTEMS

To be effective in working with handicapped and nonhandicapped students, all teachers should have a clear understanding of the available resource and support systems to assist them in their activities. Teachers should be knowledgeable about the duties and responsibilities of various human resource and support systems, including paraprofessionals, resource room teachers, special education teachers, special education consultants, special education supervisors, social workers, school psychologists, school counselors, school nurses, vocational rehabilitation counselors, speech therapists, physical therapists, occupational therapists, parent organizations, community organizations, and organizations of handicapped persons. The support provided by these individuals or organizations can assist the regular classroom teacher to deal with the particular problems of an individual student or with the class as a whole.

The classroom teacher also must be knowledgeable about various nonhuman resources and support systems, including the use of student records. Studies have shown that teachers do not use student academic files to the extent that they should, in many cases because of a limited knowledge of the file contents. These files contain academic records as well as reports from various organizations and individuals, such as, physicians, psychologists, and school counselors.

Most classroom teachers, through their teacher-preparation programs, are prepared to use other resources, such as audio-visual equipment, but normally, on a limited scale. However, many newly developed instructional packages for handicapped students are based on an individualized model with heavy reliance on audio-visual equipment. The implementation of mainstreaming will increase the availability of these curriculum materials to teachers. In addition, teachers need an awareness of the various sources of information on curriculum materials in the classroom. In some cases, acquiring this knowledge entails reading special education journals as well as education journals in their own disciplines. To insure that regular classroom teachers remain up-to-date on activities and knowledge pertaining to mainstreaming resources, they should attend workshops and conferences which are designed to provide them with such information.

Since the laws provide that teachers develop individualized educational plans for handicapped students, all teachers involved in mainstreaming should be aware of the process of individualizing curricula. The teacher's responsibility includes participation in the schoolwide planning for mainstreaming with parents, volunteers, and school staff.

TEACHING TECHNIQUES

In most mainstream environments the regular classroom teacher is required to conduct group as well as individualized activities. To accomplish them, teachers should be able to identify a student's academic deficiencies and plan a suitable individualized program to help to remediate them. Although most programing is individualized, all learning tasks should be identified to allow each student in a group to accomplish a similar goal. Handicapped students should not be identified or singled out for their inability to accomplish a goal that regular class students achieve; consequently, considerable planning is necessary for teachers. As part of this planning, teachers should be knowledgeable about organizing learning centers that allow students to choose instructional activities and strategies that best suit their particular learning styles. All teachers should be familiar with and have the ability to use professional resources to gain current information about instructional techniques and methods which have proven to be effective in mainstream environments. One method of instruction that appears to offer a unique potential for learning is peer pairing. It facilitates the imitation of appropriate behavior. This method may involve cross-age or cross-grade grouping. Above all, in a mainstream environment, teachers must be flexible. They must be capable of modifying their teaching strategies and substituting curriculum materials when other methods and materials are found to be ineffective.

LEARNING ENVIRONMENT

Teachers who provide educational services to handicapped students in the traditional classroom setting must pay particular attention to the physical characteristics of their classrooms. Some students will have physical limitations that restrict movement in a crowded classroom, for example, reaching high shelves. In these cases, the classroom teacher must be responsible for making physical changes in the room that allow all students free mobility. The changes may mean removing high shelves and providing space at a lower level for instructional materials, or rearranging desks to provide wider aisles. The classroom teacher must be aware of the federal and state barrier-free legislation that mandates the removal of physical barriers that inhibit persons from free movement into and through buildings. When teachers do not have the authority to make essential physical modifications in the classroom, they must know whom to call or petition for such changes.

LEARNING STYLE

The regular classroom teacher in a mainstream setting will encounter students, both handicapped and nonhandicapped, who have different learning styles. The teacher must be knowledgeable about these styles in order to provide an environment in which students can learn by the methodologies that suit them best. Teachers who do not have prior knowledge of the individual learning styles of their students will find it necessary to become acquainted with assessment techniques that are used to determine learning styles. Cognitive Style Mapping has been suggested as one appropriate assessment for use by all teachers.

CLASSROOM MANAGEMENT

Teachers must have the ability to organize classrooms for instructional purposes and to manage them effectively to meet the needs of their students. Organization includes developing a flexible time schedule that allows for the intellectual, physical, and social needs of all students. Since, in most mainstream classrooms, there will be both group and individual learning activities, teachers must know methods of managing both. In addition, teachers must be knowledgeable about modeling a specific behavior and then assessing the student's ability to imitate that model.

Because one of the main themes of the mainstream environment is to provide for social and intellectual interactions among students, teachers must be able to help the exceptional student to become an integral part of the classroom operation. The handicapped student should not be identified as a token or as one who should receive special help but, rather, as an active member of the classroom. Mainstream students should participate, in some way, in all leadership activities and responsibilities in which other students are involved.

CURRICULUM

In addition to utilizing traditional curriculum materials within a mainstream classroom, the teacher will need to select specific materials that enable the handicapped student to participate as an active member in the classroom. Classroom teachers must become knowledgeable about new curriculum materials and they must be able to develop a rationale for accepting or rejecting such materials.

The classroom teacher must be capable of developing an individualized educational plan for each handicapped student. Part of the individualized student plan will be specific performance objectives which can be measured. Thus, the teacher will find it necessary to write terminal and enabling objectives as well as to identify evaluation methodology relevant to the performance objectives. Before an individualized plan is written for a specific student, the teacher must consult with the student's parents and with professional colleagues, including special educators, counselors, and the student's previous teachers. Only after this information is obtained can a teacher determine, for a specific student, individual goals that are appropriate, realistic, and measurable. When the student's individual educational plan has been implemented, the teacher will need to re-examine, verify, and modify educational goals that are found to be unrealistic. In some cases, an individual student's educational plan will call for specific curriculum materials which are not commercially available. It thus becomes necessary for the regular classroom teacher to be able to modify or develop new curriculum materials to meet the student's specific needs.

COMMUNICATION

The communication in a mainstream classroom is of utmost importance. Teachers must be capable of expressing themselves verbally and nonverbally to all students. They must be able to modify their communication techniques according to the types of handicapped students in their classrooms. As part of the communication in the classroom, the teacher must be able to demonstrate empathy rather than neutrality, and equality rather than superiority. Before teachers can communicate effectively within the classroom, they first must analyze their individual communication techniques and styles. When this self-evaluation is accomplished, they can more easily modify their communication styles to meet the desired goals. Teachers also must be effective in communicating with the parents of handicapped children. In some cases, communications between parent and teacher must be held in confidence and not discussed in the classroom. The teacher working in a mainstream classroom also must be able to communicate effectively in public. Ultimately, it is the classroom teacher who will have first-hand information on whether mainstream placements benefit handicapped and nonhandicapped students. Teachers may be called upon to make presentations to local community groups and, in such cases, they must be able to relay the issues, problems, and needs of mainstream education to public audiences through oral as well as written communications.

ASSESSING STUDENT NEEDS

A teacher in a mainstream classroom must have the ability to assess the academic and personal needs of handicapped and nonhandicapped students. To do so, the teacher must employ both formal and informal assessment techniques in an ongoing program. Teachers must understand the advantages and disadvantages of their assessments as compared to those conducted by trained clinicians. Teacher-developed tests, in some cases, are less reliable and less valid than the standardized tests administered by a trained evaluator. However, one advantage of teacher-made tests is that they can be designed to measure specific outcomes. Before teachers undertake the development of tests, they should be aware of their role in the assessment processes within their schools. The most important kind of assessment tool that classroom teachers can use is direct observation. They have the closest interaction with individual students in the school setting and, thus, can make informal observations of students' academic achievements and social growth. In addition, they should be able to make a diagnostic report on a student's achievement. In assessing student needs, teachers must take into consideration the special education training that the handicapped student received prior to enrollment in the mainstream classroom and the fact that many handicapped students have not had the same social preparation as have nonhandicapped students.

The regular classroom teacher will find it necessary to become familiar with the standardized tests designed primarily for handicapped students. These tests may be administered on an individualized basis: a specific test for handicapped students and another for nonhandicapped students. Emphasis, however, should not be placed on the two different tests that are used but, rather, on the fact that the information gained from the tests permits the determination of individual student needs. In administering assessment instruments, the classroom teacher may find it advisable to seek prior training from a qualified test administrator to insure that the proper administrative procedures are followed. Upon completion of the assessment, the teacher must have the skills to effectively interpret and relate test information to instructional goals.

EVALUATING STUDENT PROGRESS

In order to evaluate the progress of the handicapped as well as nonhandicapped student, teachers need to know and understand the differences between criterion-referenced evaluation and norm-referenced evaluation, and they must be able to develop both types of instruments specifically for their classroom goals. In order for the classroom teacher to assess whether the students are progressing at the rate and level desired, evaluations must be made on a regular basis. In most cases, such evaluation means determining the type of assessment that is necessary to measure whether students have met the performance objectives stated in their individualized educational plans. Teachers may use standardized instruments, develop instruments of their own, or modify standardized instruments. In all cases, it is advisable for the regular classroom teacher to seek assistance in identifying and modifying instruments for the handicapped student. Moreover, the regular classroom teacher should be able to understand and interpret the scores obtained by students on any assessment measure that is used.

ADMINISTRATION

It will be up to the classroom teacher to advise administrators on needed classroom equipment, supplies, and materials. Teachers should be able to develop a working relation with the administrators of the school in which they are teaching. They will need to work with other teachers, counselors, special education teachers and, in many cases, parents, to develop long-range plans for providing services and space necessary to educate handicapped as well as nonhandicapped students. Teachers will be required to compare and contrast various administrative models, such as, itinerant services, resource rooms, and special classes. Teachers will be required to serve as advisors to the administrative staff, not only on the various service delivery models but, also, in some cases, on the method and basis for school financing of mainstream classrooms. It will be the classroom teacher who must negotiate with other school staff for the placement and grouping of mainstream students in regular classrooms. Therefore, a working relation must be developed among mainstream classroom teachers and with other teachers. In order to facilitate this relation, the mainstream classroom teacher must be able to prepare an orientation program for regular and special education teachers within the home school. Such an orientation program should include an explanation of the advantages and disadvantages of mainstreaming, as well as long-range plans for providing educational services to handicapped students. Under some circumstances, the regular teacher in the mainstream classroom may be requested to develop special classes, when appropriate, to facilitate the gradual movement of students into regular classrooms. In developing such classes, the regular classroom teacher will need the assistance of the administrative staff, counselors, and other regular classroom teachers, as well as of the parents of both handicapped and nonhandicapped students.

Summary

Many institutions of higher education are currently embarking on the development of programs to prepare all teachers to educate handicapped as well as nonhandicapped students in their classrooms. Such an endeavor has been the major thrust of the Deans' Grants Projects.

In order to develop effective teacher-preparation programs, teacher educators must have a thorough understanding of the competencies needed by mainstream classroom teachers. The study described here was undertaken to facilitate this understanding. After a thorough search of the literature, it was determined that no comprehensive listings of competencies were available. Therefore, the staff of the Dean's Grant Project at Michigan State University undertook a nationwide search for mainstream competencies. The result was 13 competency listings that had applicability for all pre-service teacher-preparation programs.

A content analysis of these lists yielded 13 categories of competencies which are described in this chapter. Many of the competencies appear to be taught currently in teacher-preparation programs. The rationale for including such competencies in this listing is to stress their relation to mainstream competencies. An adequate pre-service program for teachers who will work in mainstream classrooms must include a sound teacher-education program as well as specific mainstream competencies.

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Successive Approximation: An Alternative Approach

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ABSTRACT. *The change approach examined herein is one of "successive approximation," which is defined as a systematic approach to building a strong foundation for successful mainstream training through the establishment of individual commitment that leads to divisional commitment and, eventually, to organizational change. The conceptual framework for the successive approximation approach at the University of North Carolina at Chapel Hill is based on the legal/educational principles of Public Law 94-142. This framework is presented along with the process for establishing and implementing objectives, tasks, and strategies consistent with the change approach.*

Project Background

The University of North Carolina at Chapel Hill was initially awarded a Dean's Grant for the 1976-77 academic year. At the time the proposal was written, the dean, after completing a 10-year term, had announced his resignation. An acting dean was appointed until the new dean, Dr. Ira J. Gordon, assumed leadership in late spring of 1977. Further, the chairperson of the Division of Special Education resigned during the 1976-77 academic year and an acting chairperson was appointed. The result of these transient administrative arrangements was that significant new program development was slowed down until the new administrative leaders assumed their positions. Thus, it was impossible to develop and implement the Dean's Grant Project using a strategy that primarily relied on administrative leadership and influence.

The School of Education has a faculty of 91 members and a student body of about 2000, consisting of both undergraduate and graduates. The School is organizationally divided into four divisions: Curriculum and Instruction, Human Development and Psychological Services, Organizational Development and Institutional Studies, and Special Education. A history of the divisional structure clearly indicates psychological and physical isolation of faculty members between and sometimes within divisions. The nature of this isolation often has resulted in limited communication and collaboration on curriculum development, program planning, and research activities.

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ASSUMPTIONS

The organizational and administrative context of the School of Education was a major determinant of the assumptions that define the change strategy and framework for the Dean's Grant Project. These assumptions are as follows:

1. It is impossible to create immediate substantial change without resistance from and further alienation of the faculty.
2. Individual interest, skill, and commitment must be built before trying to institutionalize change.
3. Individual commitment must be approached through working with general education faculty members on a one-to-one basis, beginning with the most receptive faculty members, to build a strong core of support.
4. The planning year must consist of more than formal meetings to discuss future changes. A low-key effort should be implemented to experiment with various strategies of increasing faculty collaboration, which is viewed as a critical ingredient of a successful Dean's Grant Project. Essentially, the project must "get started" and be recognized as a successful effort.

CHANGE STRATEGY

The background and assumptions dictated a change strategy based on successive approximation. As a change strategy, successive approximation is defined as a systematic approach to building a strong foundation for successful mainstream training through the establishment of individual commitment that leads to divisional commitment and, eventually, to organizational change.

FRAMEWORK

The project staff, consisting of a director and training coordinator, made the initial decision on the change strategy to be adopted when the proposal was in the process of preparation. Further, an attempt was made during the preparation of the proposal to define a conceptual framework for the training model. Thus, the project director established and convened an Advisory Board for the Dean's Grant Project. This board comprised the following representatives of the various special interests:

1. One faculty member from each of the four divisions in the School of Education.

2. The director of the third-year training program, which includes all juniors majoring in education.
3. Two students, one majoring in general education and one in special education.
4. Two consumers — one handicapped University student and one parent of a handicapped child who was being mainstreamed in the local public schools.
5. Three local educational agency representatives — a superintendent, principal, and consulting teacher — who were working with a substantial number of University student teachers.

The Advisory Board identified major issues in the implementation of successful mainstreaming in local educational agencies which should be considered in the development of a pre-service training model. The issues focused largely around federal legislative requirements in respect to the education of handicapped students. Thus, it was recommended by the board that the training model be undergirded by the then-emerging legal philosophy and mandate of Public Law 94-142. Upon the recommendation of the Advisory Board, the decision was made to adopt as the organizational components of the training model four of the major legal/educational principles of Public Law 94-142: (a) least restrictive environment; (b) classification; (c) due process; and (d) individualized instruction.

SPECIFICATION OF OBJECTIVES, TASKS, AND STRATEGIES

Having established the conceptual framework, the next step addressed in the process of program development, during the period of preparing the proposal, was the specification of objectives for the three-year funding period. Again, the Advisory Board provided direction through the identification of five major areas of development: (a) faculty attitudes; (b) faculty skills; (c) curriculum adaptation; (d) increased communication among general and special education faculty and students; and (e) interuniversity development. It was recognized by the board and project staff that these areas constitute the necessary components for the quality pre-service training of general educators in regard to the placement of handicapped students in least restrictive settings. This model is illustrated in Figure 1.

The project staff formulated objectives within each broad area which was identified by the board. Since the objectives covered a three-year period, it was necessary to break them down into a series of smaller tasks in order to provide specific direction for the development of the project. The previous specification of the change strategy and conceptual framework contributed to a systematic procedure for specifying the tasks.

In addition to working with the Advisory Board, the project staff conducted individual conferences with about 25 faculty members to discuss possible collaborative efforts. For example, some faculty members ex-

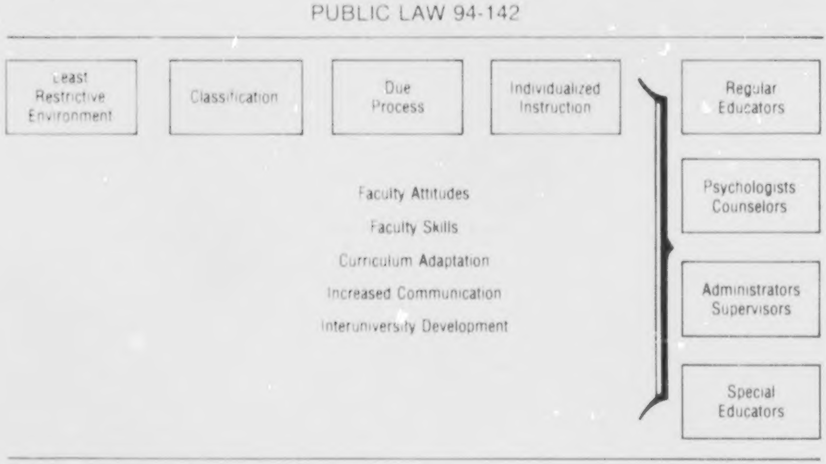
PUBLIC LAW 94-142
Least Restrictive Environment
Classification
Due Process
Individualized Instruction
Regular Educators
Psychologists Counselors
Administrators Supervisors
Special Educators
Faculty Attitudes
Faculty Skills
Curriculum Adaptation
Increased Communication
Interuniversity Development

Fig. 1. Framework for training model

pressed an interest in team teaching and others discussed models of joint practica for special and general education students. Other interests included developing curriculum products, conducting research, and providing training to teachers in nearby school systems. As individuals identified their interests, conversations broadened to the discussion of barriers to the development of new training models and the implementation of the mainstream concept. Some of the barriers mentioned from the outset were (a) the lack of time available to include new content in courses, (b) the unwillingness of some faculty members to recognize the importance of educating the handicapped population, (c) the low priority given to program development in the University reward system, and (d) the low frequency of collaborative efforts among faculty members in the past. Many suggestions were offered on ways to minimize these barriers.

The project staff compiled and analyzed the interview data from individual conferences and Advisory Board discussions to pinpoint the actual tasks to address to accomplish the objectives. The interview data also pointed clearly to the need for particular strategies in accomplishing many of the tasks. The collective recommendations from conferences and the board were synthesized and organized by the project staff into a plan based on the change strategy of successive approximation and the conceptual framework of the legal educational principles of Public Law 94-142. This plan, which incorporates the objectives, tasks, and strategies, is presented in a following section.

FACULTY INVOLVEMENT

Consistent with the successive approximation change strategy, the initial implementation of the project plan involved a small number of receptive and enthusiastic faculty members. They were introduced to the objectives, tasks, and strategies of the plan in individual conferences with project staff. In all conferences, an attempt was made to build on the interest of the faculty member in planning tasks of mutual involvement and collaboration. For example, if team teaching was identified as a high-interest area, an effort was immediately initiated to plan the details of a team-teaching effort with the particular individual with almost total focus on his/her area of interest. The staff was careful not to overwhelm education faculty members with too much immediate responsibility in the project; rather, we proceeded in a systematic fashion toward greater involvement as interest and commitment were generated.

After the initial collaborative effort (e.g., team teaching, joint practica arrangements, and product development) was completed, general education faculty members were encouraged to broaden their involvement by branching out into other collaborative tasks. The initial participants in project activities, in many instances, positively influenced their colleagues on the general education faculty to engage in tasks related to project objectives. A ripple effect of faculty participation has been a positive outcome.

There are outlined in the following section the sequential steps that either have been or will be pursued by project staff to involve the general education faculty in the change process. The strategy of building individual commitment through faculty involvement as a foundation for institutional change is the cornerstone of this approach.

Project Plan

The five areas of the project plan, as previously indicated, include (a) faculty attitudes; (b) faculty skills; (c) curriculum adaptation; (d) increased communication among general and special education faculty and students; and (e) interuniversity development. Each area includes an objective for accomplishment over the three-year funding period in addition to the specific tasks and strategies needed for implementation.

FACULTY ATTITUDES

Behavioral Objective

By the end of the 1978-79 academic year, 80 per cent of the general and special education faculty will recognize handicapped students as part of the clientele of regular classes and will assume responsibility for preparing themselves and their students to become knowledgeable in the area of mainstreaming.

Tasks	*Strategies*
1. Initiate mainstreaming collaboration with two or three general education faculty members.	1. (a) Identify the most receptive faculty members to insure initial success.
	(b) Collaborate through team teaching and other cooperative projects to increase interactions among faculty members in all divisions of the School of Education on issues related to mainstreaming.
	(c) Provide opportunity for open and candid communication.
	(d) Evaluate the results of faculty collaboration using methods appropriate to the task, such as, student and participating faculty evaluation of team teaching.
	(e) Based on evaluation data, identify positive features of collaborative efforts in order to capitalize on them in the future.
	(f) Identify problems associated with collaborative efforts and methods of minimizing or eliminating them.
	(g) Encourage general education faculty members to advocate mainstreaming collaboration among their divisional colleagues.
2. Cooperatively plan and deliver mainstreaming content in the two education courses required for all majors during the junior year.	2. (a) Systematically identify competencies to be included in each of the two courses (EDUC 54 and EDUC 55) by collaboration with the general education faculty mem-

	bers responsible for teaching the different sections of these courses. (b) Decide on the type of instructional format to be used and the length of time to be devoted to the delivery of content. (c) Place reading materials on reserve for students and give faculty members personal copies of readings. (d) Deliver mainstreaming presentation in each of the five sections of EDUC 54 and EDUC 55. (e) Have general education faculty members and students evaluate presentation and indicate how mainstream content for the course can be improved and if more information on mainstreaming should be included in other courses. (f) Based on evaluation data, make necessary revisions to strengthen the presentation next time it is given. (g) Indicate appreciation to general education faculty member for cooperation on mainstreaming curriculum adaptation.
3. Provide opportunity for general education faculty members to interact with handicapped University students.	3. (a) Identify handicapped University students who may be interested in becoming adjunct faculty in the mainstream project. (b) Involve these handicapped students in mainstream presentations in general education courses as panelists, lecturers, and group discussion leaders. (c) Through this method, demonstrate that mainstreaming is occurring on the University campus. (d) Accentuate opportunities to highlight the strengths of handicapped students and to place them in positions of status.

4. Demonstrate the scholarly nature of mainstreaming and how scholarly productivity associated with mainstreaming relates to the reward system of the University.	4. (a) Conduct research and write books and articles for refereed journals. (b) Encourage general education faculty members to collaborate with mainstream faculty on these projects.
5. Explore ways that the University reward system can be responsive to the efforts of faculty members engaged in mainstreaming activities.	5. (a) Consult with the Dean of the School of Education and representatives of the senior faculty on exploring ways to create a responsive reward system. (b) Consider modifying standard student evaluation forms to provide the opportunity for general education faculty members, who have provided mainstream content in their courses, to be recognized and rewarded. (c) Consider the value of mainstream program development as part of University service when making decisions relating to promotion and tenure.
6. Initiate mainstreaming collaboration with 25 per cent of the general education faculty.	6. (a) Same as strategy 1. (b) Refer to strategies specified in the following sections: Faculty Skills, Curriculum Adaptation, Increasing Interaction Between General and Special Education Faculty Members and Students.
7. Create community awareness of mainstreaming to promote the realization that mainstreaming is not merely an academic concern.	7. (a) Conduct programs on mainstreaming at 75 per cent of the public school PTA meetings in Chapel Hill. (b) Participate in the planning and implementation of a community forum on education of the handicapped to discuss the implications of Public Law 94-142 for the local school system. (c) Make a presentation on mainstreaming to the local board of education and arrange for press coverage. (d) Make presentations on mainstreaming to service groups and civic organizations.
8. Initiate mainstreaming collaboration with 50 per cent of the general education faculty.	8. (a) Same as strategy 1. (b) Same as strategy 6 (b).
9. Initiate mainstreaming collaboration with 80 per cent of the general education faculty.	9. (a) Same as strategy 1. (b) Same as strategy 6 (b).

FACULTY SKILLS

Behavioral Objective

By the end of the 1978-79 academic year, 75 per cent of the special and general education faculty in the School of Education will demonstrate expanded knowledge of stated competencies in the areas of least restrictive environment, classification, due process, and individualized instruction by reading mainstream literature, attending state and national conferences, collaborating with mainstream faculty on curriculum adaptation and mainstream projects, observing in public school classes, and involvement with handicapped University students.

Tasks	*Strategies*
1. Establish an atmosphere in the School of Education in which staff development needs of individual faculty members can be acknowledged without the threat of negative peer reaction.	1. (a) In individual conferences with special and general education faculty, highlight the fact that both disciplines can benefit from sharing each other's expertise. (b) Model the style of open communication that permits one to say, "I don't know." (c) Highlight the fact that all educators have staff development needs in the area of mainstreaming and that everyone can benefit through the approach of shared responsibility.
2. Develop a resource library for faculty (and students) to provide ready access to mainstream information.	2. (a) Contact Deans' Grants Projects in their second year and the National Support Systems Project to identify relevant resource materials for the library. (b) Collect books, annotated bibliographies, journal articles, research reports, audiovisual materials, and modules (developed by other Deans' Grants Projects). (c) Establish a check-out system for resource materials. (d) Inform faculty members of available materials. (e) As faculty members identify questions on mainstreaming, immediately provide them with pertinent resource materials.

	(f) Encourage special and general education students to use the resource library for term papers, research projects, and class presentations which will, in turn, be presented to faculty members to evaluate.
3. Address the needs of faculty members to expand knowledge related to mainstreaming through collaboration among special and general education faculty regarding curriculum adaptation and efforts to increase interaction around projects of mutual interest.	3. (a) Same as strategies listed in Curriculum Adaptation section. (b) Same as strategies listed in Increasing Interaction Among Special and General Education Faculty section.
4. Inform special and general education faculty members of workshops and conferences related to mainstreaming as applied to their areas of specialization.	4.(a) Contact the State Department of Public Instruction, regional staff development centers, and other universities in the state and request that the mainstream faculty be informed of up-coming workshops and conferences related to mainstreaming. (b) Survey the program listings of presentations at national conferences to identify relevant sessions on mainstreaming which might be of interest to special and general education faculty members. (c) Consider the staff development needs of special and general education faculty when participating on the Interuniversity Advisory Committee in planning interuniversity conferences on mainstreaming. (d) Share the information identified by strategies (a) through (c) with special and general education faculty members as it applies to their particular areas of specialization.
5. Seek feedback from special and general education faculty on whether other means of staff development are needed.	5 (a) Through individual conferences with faculty members, solicit suggestions on ways to structure meaningful opportunities for expanding knowledge of mainstreaming. (b) Carefully review suggestions to identify the direction of desired change. (c) Incorporate suggestions into a systematic plan of application.

CURRICULUM ADAPTATION

Behavioral Objective

By the end of the 1978-79 academic year, 75 per cent of the graduate and undergraduate courses within the School of Education and outside the Division of Special Education will incorporate competencies in areas of least restrictive environment, classification, due process, and individualized instruction related to the concept of mainstreaming. These competencies will be integrated into the topics, sequences, experiences, and requirements of the courses.

Tasks	*Strategies*
1. Identify competencies in the areas of least restrictive environment, classification, due process, and individualized instruction.	1. (a) Write to selected Deans' Grants Projects going into second year to obtain competencies specified for these training programs. (b) Discuss needed competencies with practicing classroom teachers, resource teachers, principals, school psychologists, and counselors. (c) Develop a written list of competencies in each of the four areas as a basis for systematically planning curriculum adaptation.
2. Team teach a general education course with a general education faculty member to explore possibilities of merging mainstream curriculum content.	2. (a) Identify a highly receptive general education faculty member interested in team teaching. (b) Jointly plan each course presentation to adapt content to both handicapped and nonhandicapped populations. (c) Evaluate team teaching from the perspective of each student and the participating faculty member. (d) Analyze evaluation data to pinpoint the strengths of this approach and the obstacles that must be overcome.
3. Cooperatively plan and deliver mainstream content in the two education courses required for all majors during their junior year (same as Faculty Attitudes — Task 2).	3. (a) Systematically identify competencies to be included in each of the two courses (EDUC 54 and EDUC 55) by collaboration with the general education faculty members responsible for teaching the different sections of these courses.

	(b) Decide on the type of instructional format to be used and the length of time to be devoted to the delivery of content. (c) Place reading materials on reserve for students and give faculty members personal copies of readings. (d) Deliver mainstream presentation in each of the five sections of EDUC 54 and EDUC 55. (e) Have general education faculty members and students evaluate presentations, indicating how mainstream content for this course can be improved and if more information on mainstreaming should be included in other courses. (f) Based on evaluation data, make necessary revisions to strengthen the presentation the next time it is given. (g) Indicate appreciation to general education faculty member for cooperation on mainstream curriculum adaptation (same as Faculty Attitudes — Strategy 2).
4. Cooperatively plan and deliver mainstreaming content in 25 per cent of the courses in the School of Education.	4. (a) Begin with courses in the early childhood and intermediate teacher-education programs. (b) Systematically identify competencies to be included in each course by the following procedure: (i) Examine the already existing syllabus for each course. (ii) Match competencies in the areas of least restrictive environment, classification, individualized instruction, and due process to the topics specified on the syllabus. (iii) Choose the competencies that should be included through consensus of the participating special and general education faculty members, considering factors such as amount of time to be devoted to mainstream content, and competencies that can more appropriately be included in other courses.

	(c) Same as strategy 3 (b) through 3 (g).
5. Cooperatively plan and deliver mainstreaming content in 50 per cent of the courses in the School of Education.	5. Same as strategy 4.
6. Secure the official endorsement of the chairpersons and faculty in each division in regard to required competencies for general educators in the areas of least restrictive environment, classification, due process, and individualized instruction.	6. (a) Compile written documentation of the competencies identified by general education faculty members as appropriate to the courses which they teach. (b) Share this information with the faculty and chairperson in each division and indicate the need to formalize the training sequence of mainstream content. (c) Formulate a procedure for accomplishing the official adoption of a curriculum that integrates mainstream content according to the preferences of how each division would like to proceed. (d) Gain program approval through the procedure established by the University. (e) Specify in writing the certification requirements, as related to mainstreaming, for general education majors.
7. Explore ways that student evaluation of teaching can be responsive to the efforts of faculty members engaged in curriculum adaptation for mainstreaming.	7. Consider modifying standard student evaluation forms in order to provide the opportunity for general education faculty members, who have provided mainstream content in their courses, to be recognized and rewarded (same as Faculty Attitudes 5 (b).
8. Cooperatively plan and deliver mainstream content in 75 per cent of the courses in the School of Education.	8. Same as strategy 4.

INCREASING INTERACTION AMONG GENERAL AND SPECIAL EDUCATION FACULTY MEMBERS AND STUDENTS

Behavioral Objectives

A. Faculty Interaction

By the end of the 1978-79 academic year, 75 per cent of the faculty in the School of Education and outside the Division of Special Education will have participated with special education faculty members in cooperative efforts, such as, team teaching, research and writing, curriculum development, media development, joint practicum supervision, and presentations at state/national conferences.

B. Student Interaction

By the end of the 1978-79 academic year, 50 per cent of the students in the School of Education and outside the Division of Special Education will participate with special education students in cooperative efforts, such as, formal coursework, curriculum development, writing individual education plans for handicapped students, joint practicum, research and writing, and membership in the same professional organizations.

Tasks	*Strategies*
A. Faculty Interaction	
1. Meet with 25 per cent of general education faculty members to discuss mainstream goals and competencies related to each faculty member's particular area of expertise.	1. (a) Encourage one-to-one interactions. (b) Share pertinent resource materials related to mainstream goals and competencies. (c) Start with the most receptive general education faculty members.
2. Define areas of possible interaction and specify the particular type of interaction that will occur with 25 per cent of general education and special education faculty members.	2. (a) Build on interest of general education faculty members. (b) Relate general education faculty member's area of expertise to mainstream issues considering the following alternatives for interaction: team teaching, research and writing, curriculum development, media development, joint practicum supervision, and presentations at state/national meetings.

	(c) Share information and ideas on possible sources of securing support to make implementation possible. (d) Encourage group efforts among several faculty members from different divisions. (e) Use consensus for decision making.
3. Insure probability of successful interaction through the identification of necessary resources and support.	3. (a) Locate sources of financial support (state dollars, private foundations, consultation with public schools) when needed to accomplish tasks, such as, research, curriculum development, and media development. (b) Locate appropriate public school settings to accomplish tasks, such as, cooperative practicum placements of special and general education students who require joint supervision by special and regular education faculty members. (c) Assist in arranging publication contracts and outlets for development of books, articles, and curriculum products. (d) Locate and/or develop appropriate reading materials and audiovisual aids for team-teaching arrangements.
4. Initiate tasks related to the specified interaction.	4. (a) Set a reasonable time-line. (b) Follow a systematic plan, using successive approximation.
5. Follow-through and evaluate tasks related to specified interactions.	5. (a) Conduct continuous and informal evaluation from the beginning of interaction through completion. Evaluation procedures will vary according to the particular nature of the interaction (e.g., questionnaires, anecdotal records, case studies, field-testing products). (b) Revise interaction plan according to evaluation data. (c) Share evaluation data with other faculty members as a means of increasing interest in mainstreaming.

6. Identify areas of further interaction with the 25 per cent of faculty members already involved in collaborative efforts.	6. (a) Use evaluation data as basis of decision making. (b) Build on interests of the involved faculty members, strengths associated with the first completed task, and future needs which have been identified.
7. Meet with an additional 50 per cent of general education faculty members to discuss mainstream goals and competencies related to each faculty member's particular area of expertise.	7. Same strategies as 1.
8. Repeat tasks 2-6.	8. Repeat strategies 2-6.
B. Student Interaction	
1. Initiate interactions among 25 per cent of special and general education students during formal coursework.	1. Begin to work in task groups in the core teacher education courses taken by all education majors during the junior year.
2. Encourage joint participation among 25 per cent of general and special education students in volunteer work with handicapped students.	2. (a) Special education students will develop and implement a training procedure to teach general education students to make learning activity packets (LAPs) for handicapped students. (b) During the training sessions, use a small-group format as a means of sharing ideas and expertise among students. (c) Place sample LAPs in the instructional materials center for all students to share. (d) Establish a "Fun Day" — A day of recreation for general and special education students paired with handicapped children in one-to-one relationships.
3. Provide for reciprocal sharing of curriculum products developed in line with requirements of methods courses among 25 per cent of special and general education students.	3. (a) Share experience units, annotated bibliographies, criterion-referenced tests, learning games, and materials. (b) Through the sharing of products, capitalize on opportunities for students to learn each other's expertise and

	to develop positive interactions, which characterize successful resource-classroom teacher relationships
4. Hold joint meetings of the student chapters of the major professional organizations in special and general education. These meetings will be attended by 15 per cent of the special and general education students.	4. (a) Initiate joint planning of meetings and other projects of mutual interest by the officers of the Student Council for Exceptional Children and the Student Chapter of the North Carolina Association of Educators. (b) Through joint meetings, provide the opportunity for students to learn commonalities among various disciplines in the field of education and the importance of cooperation and shared responsibility.
5. Plan and implement a model of joint practicum to increase interaction between 10 per cent of the special and early childhood/intermediate education students.	5. (a) Locate a school whose principal and faculty are willing to participate in practicum innovation. (b) Discuss the idea of joint practicum with the most receptive general education faculty members. (c) Identify general education faculty members in the School of Education to assume major responsibility for planning innovative practica for special and general education students. (d) Plan cooperatively with the principal, teachers, and University faculty members to develop a model for pairing a general education undergraduate student teacher with a M.A. special education student teacher in the same regular classroom. (e) Specify in contract form the process of expected interaction and shared responsibility between special and general education students. This contract should include the requirements to jointly develop and implement IEPs, engage in joint planning of daily lessons, and constructively evaluate each other's performance according to predetermined criteria.

	(f) Arrange for joint supervision of special and general education students by special and general education faculty.
	(g) Initiate evaluation of the training model by classroom teachers, principals, participating students, and the associated University faculty members.
	(h) Continuously refine the training model based on evaluation data.
	(i) Consider adding school psychology externs to the model paired with the special and early childhood/intermediate student teachers.
6. Repeat tasks 1-3 with 50 per cent of special and general education students.	6. Repeat strategies 1-3.
7. Repeat task 4 with 30 per cent of special and general education students.	7. Repeat strategy 4.
8. Repeat task 5 with 25 per cent of the special and early childhood/intermediate students.	8. Repeat strategy 5.

INTERUNIVERSITY DEVELOPMENT

Behavioral Objective

By the end of the 1978-79 academic year, six mainstreaming conferences will be held during a three-year period which will be attended by a minimum of two faculty members from each of the 22 North Carolina colleges and universities. The purpose of the conferences will be to increase interaction among college and university faculties through cooperative effort on tasks, such as, research and writing, curriculum development, media development, providing visiting lecturers, and presentations at state and national meetings.

Tasks	*Strategies*
1976-1977	
1. Locate funding for conference expenses and travel for participating faculty.	1. (a) Identify money available from Project Retool (BEH) and the North Carolina Department of Public Instruction. (b) Explore other avenues of funding, such as, private foundations and special grants.
2. Plan and implement first interuniversity conference.	2. (a) Identify priority training needs of college and university faculty members within the state. (b) Plan and implement conference cooperatively with other Deans' Grants Projects in North Carolina. (c) Invite representatives from the 22 colleges and universities in North Carolina.
3. Establish an Interuniversity Advisory Committee to plan future development.	3. (a) Constitute the advisory committee by involving eight representatives from colleges and universities attending the first conference. (b) Use the advisory committee as a special task force attached to the Cooperative Planning Consortium in Special Education.
4. Evaluate first interuniversity conference.	4. Initiate evaluation through an in-depth questionnaire completed by all conference participants.

5. Plan and implement second conference through the Interuniversity Advisory Committee.	5. (a) Convene the Interuniversity Advisory Committee to review evaluation data from the previous conference and to discuss needs expressed by participants during the conference. (b) Arrange date, time, topic, speakers, and evaluation instruments.
6. Evaluate second conference.	6. Evaluate with the questionnaire.
7. Identify a project that all participating colleges and universities can work on during the 1977-78 academic year.	7. (a) Encourage participants to reach consensus on identification of a project, such as, the development of training modules. (b) Ask representatives of the various colleges and universities to identify the portion of the project for which they will be responsible. (c) Set a time-line for project development and completion. (d) Locate funding.
1977-1978	
8. Initiate an interuniversity communications network to share on-going activities, progress toward the development of the state project, and issues related to mainstreaming.	8. (a) Facilitate interuniversity communications through newsletters, meetings at state conferences, and visiting lecturers. (b) Appoint one member of the Interuniversity Advisory Committee to be responsible for coordinating the communications network.
9. Plan and implement two conferences during the 1977-78 year on topics identified as priorities by statewide college and university faculty.	9. Same strategies as 5.
10. Continue development of state project or initiate new project involving all participating colleges and universities.	10. (a) Encourage participants to reach consensus on whether to expand the first project worked on during the 1977-78 year into the 1978-79 year, or to plan a different project for the 1978-79 year.

	(b) Identify dissemination strategies for the project.
1978-1979	
11. Strengthen communications network.	11. Evaluate strategies used in strategy 7 and revise strategies according to identified needs.
12. Plan and implement two conferences through Interuniversity Advisory Committee.	12. Same strategies as 5.

Summary

The approach to the development of a pre-service training model for the Dean's Grant Project at the University of North Carolina at Chapel Hill is characterized as successive approximation. Information related to the organizational context and initial assumptions regarding the change process are the basis for the rationale for the successive approximation approach. This approach involves the establishment of individual commitment to change through a step-by-step process prior to working toward divisional and institutional change. The conceptual framework within which this change approach was implemented at the University of North Carolina at Chapel Hill incorporated the legal/educational principles of Public Law 94-142, including least restrictive environment, classification, due process, and individualized instruction.

The initial stages of program development relate to the decision-making process that is used to specify objectives, tasks, and strategies. This process largely involves the project staff with an Advisory Board and general education faculty members in individual conferences. The resulting plan has been detailed in a series of objectives and the tasks and strategies for achieving the objectives.

Materials for Use in Teacher-Training Programs: A Statewide Approach

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ABSTRACT. *The development of activities and materials for use by college faculty is described in this paper along with information on the content and use of the materials. Evaluation indicated that the materials effectively increased knowledge about handicapped children and positively influenced attitudes toward them. The resource has proved especially useful in teacher-preparation institutions that do not include departments of special education.*

Background and Rationale for the Project

Since 1971, the School of Education and Rehabilitation, University of Northern Colorado, has offered a course both on and off campus to provide non-special (i.e., general) education majors with information on handicapped students and specific methods of teaching them in the regular classroom. In the early 1970s, the faculty members teaching this course had difficulty in identifying instructional materials that were appropriate to the course. Most existing materials were designed for use with special education majors and, therefore, were too technical for the needs of regular classroom teachers. Other available materials had been designed for parent groups and, thus, also were not appropriate for regular classroom teachers.

In June 1973, the Colorado Legislature enacted House Bill 1164 mandating that

> . . . handicapped children shall be educated in regular classrooms, insofar as practicable, and should receive supplementary services only when the nature of the child's handicap makes the inclusion of the child in a regular classroom impractical. . . .

This legislative mandate has had a profound effect on the inservice and pre-service preparation of general educators in Colorado. As a direct outgrowth of the mandate, the legislature allocated $2 million a year for three years for the inservice training of general educators in order that they could be provided with the needed skills and competencies to work more effectively with mildly handicapped children. It was assumed that state colleges and universities would initiate a similar component in their pre-service teacher-preparation programs.

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All these factors intensified the need for appropriate instructional materials. Therefore, some faculty members at the University of Northern Colorado decided to develop materials to specifically meet the needs of general educators. The first product was a series of seven one-half hour video tapes for use in Colorado and other states. Accompanying the tapes are two viewing guides: one for students and another for instructors. The following topics are included in the tapes: (a) overview of handicapping conditions; (b) programing for handicapped students past, present, and future; (c) continuum of services — types of educational programs; and (d) in the remaining four tapes, methods by which the regular classroom teacher can accommodate children who are visually impaired, hearing impaired, limited in intellectual capacity, and learning disabled.

By June 1974, consequently, when funding was received for the "Pre-service Project to Prepare General Educators to Program for Handicapped Students," the School of Special Education and Rehabilitation, University of Northern Colorado, already had had several years of experience in searching for and developing materials appropriate for preparing regular classroom teachers for mainstreaming. Although the project was funded through the University of Northern Colorado, it was designed to serve all 15 colleges and universities in the state that prepared regular classroom teachers. The specific purpose of the project was to provide college faculties with activities and materials for use in the pre-service preparation of general educators to work with handicapped students in the regular classroom.

Process

The following narrative examines the process involved in the development of instructional materials at the pre-service level. Each phase from planning through dissemination is described in depth to aid the reader in understanding not only the actual process but, also, the general content of the materials as well as the problems encountered.

PLANNING

The first project activity was the appointment of an advisory committee to assist in the planning, validation, and revision of materials developed by the project's nuclear staff. The advisory committee included representatives from each college and university, two special education teachers, two regular classroom teachers, and two public school administrators.

The first task of the advisory committee was to decide how to best serve each college and university. Several committee members expressed concern that the project would infringe on the academic freedom of faculty members by telling them what to teach and how to teach it. They preferred a variety of activities from which individuals could choose, which would better accommodate their faculties' teaching styles or their institutions' delivery systems. "Canned" programs, such as films, video tapes, filmstrip series, or self-instructional modules, were considered to be too inflexible to meet the needs of all 15 colleges and universities.

At the first advisory committee meeting, it was decided that the project director would assume responsibility for a continuous search for materials and activities that would be appropriate for preparing regular classroom teachers to work with mildly handicapped children. When activities in certain areas were lacking, they would be developed by the project staff or qualified consultants. The project would then make available the description of the activities and the necessary materials for implementing them. The participating colleges and universities would select only those activities which they felt were appropriate for their needs. In this way, each institution could tailor its own program.

The second problem facing the advisory committee was how to organize the materials to facilitate their use. Organization by unit or area of concern was decided upon. The advisory committee suggested 50 possible cross-sectional units. These units were then mailed for evaluation to 400 regular classroom teachers who had experience with handicapped students. The following 25 units received the highest ratings and, therefore, were used by the project:

Section A — General

1. Overview of Handicapping Conditions
2. Mainstreaming: Who and Why?
3. Delivery Systems
4. Understanding Students
5. Recognition of Teacher Attitudes
6. Pupil-Teacher Interaction
7. Learning Styles
8. Identification
9. Referral Process and Staffing
10. Behavior
11. Alternative Methods of Measuring Student Progress
12. Individualized Instruction
13. Facilitating the Integration Process
14. Media Materials

Common concerns

Section B — Elementary

15. Reading for Children with Special Needs
16. Math for Children with Special Needs
17. Spelling for Children with Special Needs
18. Handwriting for Children with Special Needs
19. Language for Children with Special Needs
20. Science for Children with Special Needs
21. Physical Education for Children with Special Needs
22. Music for Children with Special Needs
23. Art for Children with Special Needs
24. Social Studies for Children with Special Needs

Section C — Secondary

25. Adapting Curricula for Handicapped Students at the Secondary Level

DESIGNING THE INSTRUCTIONAL UNITS

The first year of the project (1974-75) was devoted to deciding on an appropriate and convenient format for presenting the activities, identifying and describing useful activities, and securing the materials necessary to implement them. The following format, it was decided, would permit the valuable information in each unit to be presented in a simple, easy to understand manner.

Format for Each Unit

Title: The title of the unit relates to a certain *area of concern* (e.g., learning styles, behavior) to aid regular education teachers in programing for handicapped children in their classes.

Goals: The goal of each unit briefly describes the general skills or knowledge emphasized in the unit.

Learning Objectives: Each unit contains one or more learning objectives that identify specific components of the over-all unit goal. These objectives provide more specific information on what the participant will learn from the unit. They are intentionally general in nature to allow instructors the opportunity to add the individual level of specificity they deem desirable.

Learning Activities: The learning activities are suggestions to be used by the instructor to help the students to reach the unit goals and objectives. Each activity is designed to teach at least one learning objective. Some of the learning activities suggest media materials; others involve group discussions, role-playing, or outside-of-class assignments. The learning activities comprise the bulk of each unit and may vary in number from 15 to 45. Some activities take only 10 minutes to complete while others may take several hours. All were written for instructors' use. Every effort was made to include activities which are not normally taught in methods classes yet are appropriate for adapting curricula to mainstreamed students.

Evaluation: The evaluation section of each unit is a brief summary of the infor mation conveyed by the activities. The purpose is to provide the instructor with background information for each unit. This section has been especially helpful to those instructors who have little or no background in special education. It also serves as a useful source of test questions.

Resources: The resource section is an annotated bibliography of the more expensive materials listed in the learning activity section. Information is given on the cost of each material, the level for which it is appropriate, and a brief description of it. Also included is a bibliography of related references which are not mentioned in the learning activity section.

Each unit is bound separately and contains, in addition, a certain number of appendices that describe the materials delineated in the learning activity section which are not considered expensive, such as, copies of articles, overhead transparencies, audio tapes, and selected video tapes and filmstrips. The bound unit and assorted appendices are contained in a small box that comprises the total package for the unit.

IDENTIFYING AND WRITING THE LEARNING ACTIVITIES

The key to the success of the project is the identification of valuable learning activities. Initially, the project staff sent 150 letters to universities, state education agencies, and publishing companies requesting techniques or materials appropriate for preparing regular classroom teachers to work with mildly handicapped students. At that time (1974), the response was small. One can speculate that today the response probably would be much greater. Consequently, most of the activities either were written by the project staff and their consultants or were borrowed from other projects. In only a very few cases was there any problem in obtaining permission to use the activities developed by other programs.

One of the most difficult, yet important, tasks during the first year was identifying consultants who had both the knowledge to perform activities and the ability to so write them up that they could be duplicated by readers. In some cases, it proved to be efficient for the project staff to interview the consultants or to observe demonstrations of the activities and then to write up the latter, using the established format. The enthusiasm and interest that made the original activities successful were difficult to convey through written descriptions, of course.

The units which were designed to provide activities for adapting subject areas (e.g., physical education, art, music, reading, math, handwriting, and spelling) were the most difficult to write. Classroom teachers and college faculty members with special expertise in each subject area were employed to write these units; when necessary, assistance was sought from persons who had experience in special education.

The advisory committee also had the responsibility for reviewing completed units. Their contributions were very valuable because they resulted in (a) the modification of activities that lacked clarity; (b) the elimination of activities which could not be implemented without considerable background in special education, and (c) the addition of activities currently used in pre-service and inservice programs in Colorado. An additional advantage was that the advisory committee seemed to accept the materials and to be willing to encourage their use.

FIELD TESTING

The primary goal of the second year of the project was to field test the materials. These data were then used to revise the units during the third year of the project.

A prototype field test, which included the following activities, was conducted on the University of Northern Colorado campus during the summer of 1975:

1. Determination of an evaluation model.
2. Design of the evaluation instruments.
3. Development of a prototype field test, using the evaluation instruments.
4. Analysis of the data and revision of the evaluation instruments.
5. Distribution of the evaluation instruments to the field testers.

The project director met with faculty members from colleges and universities interested in participating in the field-testing process. An inservice meeting was held at each participating school. During this meeting, instructors planned their courses and selected unit activities to use. The project director provided the materials necessary to implement the activities selected and explained the use of the evaluation instruments. In many instances, several faculty members from an institution incorporated activities into their respective courses. Units and activities were used in the following types of courses: (a) elementary education methods, (b) secondary education methods, (c) educational psychology, (d) student teaching, and (e) special courses to prepare regular classroom teachers to work with handicapped students in regular classes.

All the colleges and universities in the state were invited to field test any of the materials they desired. This approach was used for several reasons: Many members of the advisory committee indicated an immediate desire to initiate teacher-training activities to prepare regular education teachers to work with mildly handicapped children in regular classes. In most cases this desire resulted from an emphasis by the Colorado Commission on Higher Education upon such programing in teacher education. (Currently, it is mandated.) Many of the faculty members involved in the field testing had no training or experience in special education and were actively seeking ideas and materials. An additional reason for inviting all schools to participate was a desire to familiarize as many faculty members as possible with the materials and their use. It was hoped that, eventually, several faculty members at each institution would incorporate some of the activities developed by the project into their courses.

The greatest problem in the field-testing process was getting college faculty members to decide on activities prior to the beginning of their courses. Many of the pre-post tests had to be individually developed for each course. By necessity, these tests had to be completed and mailed to the professors before the courses started. Thus, early determination of the activities to be used was critical.

Because of the inservice programs with which faculty persons were involved, there was little problem with participation in the evaluation process. In addition, problems and/or progress in field testing were discussed by telephone. In all, 14 colleges and universities participated in the field testing of the units prepared by the project.

EVALUATION AND REVISION

The thrust of the project's third year (1976-77) was data analysis and unit revision. Evaluation concerns rested in three areas: (a) the preparation of units and activities, (b) gains in skills and competencies, and (c) attitudinal changes. These areas are discussed in the following subsections.

Units and Activities

The primary focus of the project, as noted previously, was to prepare units of instruction and accompanying activities which could be employed as separate or integrated components in college and university elementary education, secondary education, and/or educational psychology curricula. The unit activities were the vehicle for transmitting the stated objectives of each unit to participating students. Therefore, evaluation efforts were directed to the examination of activities within each unit.

Evaluation of the unit activities focused on the student audiences and instructor-presenters. Two instruments were developed: A Student Activity evaluation and Instructor Activity evaluation. Both instructors and students rated the unit activities on the basis of relevance, clarity of ideas, instruction, interest level, and duration. In addition, both groups evaluated subcomponents of individual activities, such as, discussion questions, readings, media, and role playing. Instructors also responded to items related to ease of presentation and accessibility of materials.

The unit activity evaluations were accumulated at the University of Northern Colorado until all had been received. Evaluations from all the field-test sites were combined and computer analyzed. Frequencies and percentages of responses to each statement were recorded.

The intent of the activity evaluations was to identify quality activities to be retained as well as activities in need of revision. A simple but effective criterion was established: Any statement on the activity evaluation forms that received a sum percentage of 25 or more for the ratings 1, 2, and 3 was deemed to be in need of revision; ratings of 4 or 5 were considered to be good.

The results of the unit activity evaluation indicated that the initial preparation of the majority of unit activities had been very good. Unit activities that met the criterion for revision were promptly emended by the project staff. In general, students tended to rate the unit activities lower than did instructors. The instructors' evaluations were consistently very high and often did not correlate with those of the students.

Skills and Competencies

An effort was made to determine the amount of knowledge gained by the student participants. As previously indicated, an important component of the project was providing the field-test instructors with the freedom to select units and activities that best fit their needs. Although this flexibility presented certain advantages, it proved to be nearly impossible to equate the number and kind of units and activities implemented across the 14 field-test sites in order to assess gains in knowledge. Thus, an adjustment was necessary to insure accurate evaluation of the effects of the unit activities on the knowledge gains of participating students. A decision was made to administer the skills and competencies tests to field sites where a minimum of 10 units were used in the courses of study. Of the original 14 field sites, six met this criterion.

Procedure. The project staff developed questions to measure the knowledge acquired from participation in unit activities. Several questions were written for each activity and stored in a test library. All the questions were objective, true/false, or multiple choice, with one correct answer. They were field tested during the summer of 1975 and were found to be reliable.

When the field-test instructors informed the project staff of the unit activities they would use in their courses, appropriate questions were selected from the test library and were used to compose pre-post tests. Since the selected unit activities varied from one field site to another, the pre-post tests also varied.

Analysis of Results. A total of 331 students in the six field-test sites participated in the skills and competencies examinations. The t test for differences between two means for correlated samples was the statistical procedure employed. The results revealed a significant difference ($p < .001$) between pretest and posttest scores in each field-test site. The mean and standard deviation for the pretest and posttest scores for each field-test site are given in Table 1.

Although the probability levels are very high, the results of the skills and competencies tests should be viewed cautiously. Because the intent of the project was developmental rather than experimental, no attempt was made to control for the many extraneous variables that could jeopardize the internal validity. However, even with this note of caution, the results, when combined with findings from the other evaluation components, are very positive.

Table 1

Analysis of Gains in Skills and Competencies of Participating Students in Six Field-Test Sites

Field Site		Pretest		Posttest		
	N	$\overline{X}$	S. D.	$\overline{X}$	S.D.	*p*
A	21	11.24	2.14	13.57	2.06	$<.001$
D	11	18.36	3.14	28.36	1.69	$<.001$
E	41	18.44	3.57	24.32	4.97	$<.001$
H	28	20.82	3.19	25.79	4.46	$<.001$
K	32	20.84	4.25	26.41	2.06	$<.001$
P	198	43.32	3.13	46.76	2.27	$<.001$

Attitudinal Changes

The success of mainstreaming handicapped students has predominantly hinged upon two essential qualifications of the regular classroom teacher: (a) skill in providing an educational program to meet the individual needs of both handicapped and nonhandicapped students, and (b) attitude in developing an atmosphere of acceptance toward mainstreamed handicapped students.

Procedure. To assess the attitudes of pre-service regular educators toward mildly handicapped students prior to and after participation in the Preservice Project, the Mainstreaming Inventory was compiled by Clifford Baker, Gaylen Kapperman, and Theodore Montemurro; it is an adaptation of the Learning Handicapped Integration Inventory.[2] The Mainstreaming Inventory consists of 48 questions that elicit attitudes on class placement, behavior, self-concept, effect upon other students, time and work,. teacher, motivation, and parents in situations in which handicapped students are being considered for regular classroom placement. At each of the 14 field sites, the Mainstreaming Inventory was administered as a pre-post test by the field-site instructors.

Subjects. Data on the students who completed the Mainstreaming Inventory before and after participation are given in Tables 2 and 3. Since the project essentially focused on elementary and secondary education majors who were in their senior years or at the graduate level, about 70% of the participating students were either elementary or secondary education majors, and about 75% were at the senior or graduate level. Grouped under "Other" are such majors as art, music, and physical education, areas that are commonly found in public school curricula.

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[2] Developed by UCLA Special Education Research Program, Regents of the University, Los Angeles, California.

Table 2

Analysis of Participating Students Who Completed the Mainstreaming Inventory (Pretest) by Year of Study and Major

Pretest

	Elementary Education	Secondary Education	Special Education	Other	Total	%
Freshman	1	1	8	2	12	3.17
Soph.	3	1	10	6	20	5.29
Junior	27	13	5	19	64	16.93
Senior	69	54	3	40	166	43.92
Graduate	40	28	17	31	116	30.69
Total	140	97	43	98	378	100.0
%	37.04	25.66	11.38	25.93	100.01	

Table 3

Analysis of Participating Students Who Completed the Mainstreaming Inventory (Posttest) by Year of Study and Major

Posttest

	Elementary Education	Secondary Education	Special Education	Other	Total	%
Freshman	1	1	—	1	2	.66
Soph.	—	2	—	3	6	1.97
Junior	32	11	3	12	58	19.02
Senior	74	45	1	40	160	52.46
Graduate	38	10	14	17	79	25.90
Total	145	69	18	73	305	100.01
%	47.54	22.62	5.9	23.93	99.99	

Analysis of Results. Differences between responses to the 48 individual items on the pre-post tests were determined by the Kilmogorov-Smirnov one-sample test. The critical value adopted was $p<.05$.

The attitudes of pre-service teachers toward mainstreaming mildly handicapped students at the pretest period were contrasted with those at the posttest period. The data indicated statistically significant differences ($p<.05$) for 41 of the 48 items. Unexpectedly, the pretest responses revealed the presence of very positive attitudes toward integrating mildly handicapped students. The results suggest that such attitudes can be significantly improved, however.

In response to statements concerning class placement, there is a strong indication (percentages varying from 70 to 94) that pre-service teachers view regular class placement as best for mildly handicapped students and special class placement as warranted for only the most severely handicapped students. Statements directed toward the behavior of handicapped students indicated that pre-service teachers do *not* expect (percentages varying from 70 to 92) a handicapped child to be a behavioral problem. In addition, 80-93% of the group felt that the placement of a handicapped student in a regular classroom would enhance the student's self-concept. However, some concern was expressed that handicapped students might be ridiculed by nonhandicapped students.

The effect of the presence of handicapped students in regular classrooms was thought by pre-service regular classroom teachers to enhance both nonhandicapped and handicapped students and not to harm the educational achievement of nonhandicapped students (percentages ranging from 89-96). Some concern, however, was also present regarding the reactions of nonhandicapped students to the presence of students with obvious physical deformities.

With regard to the amount of time and work involved in teaching nonhandicapped and handicapped students, 85% of the pre-service teachers felt that it is not an unfair burden, and 70% felt that most curriculum materials can be used for both groups of students. However, they did expect to work with fewer students when handicapped children were in their classes (70%), although they were uncertain of the need for additional planning time.

A strong majority (percentages varying from 74 to 96) of the pre-service teachers believed that their work will be more challenging and interesting and will present an opportunity to grow both personally and professionally. They also were confident that they were competent to effectively teach handicapped students. The group, however, was only moderately in agreement regarding raising expectations for handicapped students. The best indicator of the pre-service teachers' growth in competence can be found in the fact that only 48% of the pretest teachers felt that they could work effectively with handicapped students, as compared to 74% of the posttest teachers, a very significant change.

Pre-service teachers strongly believed that handicapped students are motivated to learn and will respond to good teaching. However, only 23% of that group felt that grades are an effective reward.

The reaction of pre-service teachers toward dealing with parents of nonhandicapped students was moderately strong (61-69%) with only a small percentage expecting any difficulties (10-13%).

DISSEMINATION

Planning for the final dissemination of the materials began early in the third year. A practical and economical way of packaging the materials was researched. Necessary supplies were ordered and packaging of materials began immediately after the revisions were made. Colleges and universities were contacted to set up meetings at which the materials could be demonstrated.

The final product, labeled the *Preservice Project Kit,* consisted of the following materials:

Units: Instruction guides containing over 500 activities.

Appendices: Inexpensive materials mentioned in the units.

Overview Booklet: Explanation of how to use the materials and the field-test results.

Media Bibliography: Annotated bibliography of media appropriate for use when preparing regular class teachers to work with handicapped students.

Self-Instructional Unit: Selected activities for use as a self-instructional course (complete with pre- and posttests).

The project staff felt that it was extremely important for as many faculty members as possible to attend the meetings at which the materials were presented because of the range of the materials' possible uses. Therefore, the presentation was usually made at regularly scheduled faculty meetings. Announcements of the *short* presentation were distributed by the advisory committee member before the meeting at each institution.

Media Material for Loan. Perhaps the most popular component of the project was the use of media. A variety of media materials was obtained by the project for use on a loan basis by the participating colleges and universities. Most of the materials belong to the University of Northern Colorado and permission was obtained to loan them out through the project for two years. A list of the materials and a description of the loan procedure was mailed to each institution. Surprisingly, there was very little problem with simultaneous demands for the same materials. In addition, over the two-year period, none of the loaned materials was lost. Media were mailed out by the project 3 or 4 days before the dates of their intended use and, usually, they were returned within 4 days of being used.

The availability of the media gave instructors an opportunity to preview and use the materials. One anticipated result was that this experience would influence the participating institutions to purchase some of the materials. To guarantee that each college and university in the state could obtain some of the more expensive media materials, it was proposed that each school be allowed to order a maximum of $400 worth of materials. The materials included video tapes, 16mm films, or filmstrips that related specifically to preparing regular classroom teachers to work with handicapped children. All the media materials had to be ordered through the project.

Summary

Effective January 1, 1977, the State Board of Education required all teachers applying for a Colorado General Teacher Certificate to have preparation in the "recognition of and techniques for teaching exceptional children in regular classrooms." Each of the 15 colleges and universities in Colorado use the *Preservice Project Kit* to assist in this task. Most of the 15 colleges and universities do not have special education programs and, therefore, faculty members responsible for this new and "special" instruction have no experience or degree in the area of special education. The kit is most beneficial for such faculty.

Many teacher-preparation programs are no longer questioning the need or rationale for preparing regular classroom teachers to work with handicapped students; rather, they are searching for ways to prepare regular classroom teachers for mainstreaming. The purpose of the *Preservice Project Kit* is to assist professionals in teacher preparation with the "what to do" and "how to do it." The kit is based on specific suggestions and materials obtained from other professionals; the materials were evaluated and organized into a resource that can be used by other instructors.

Perspectives on Evaluation

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ABSTRACT. *This chapter has been written primarily for faculty members who are planning evaluations of teacher-training programs. The writers' intent is to alert would-be evaluators to some of the problems encountered in systematic evaluation and to offer some suggestions for resolving them. Among the problems discussed are (a) the need to allay faculty concerns about the evaluation and its findings; (b) the identification of specific trainee behaviors and proficiency expectations; (c) the selection of evaluation instruments; and (d) the possible negative consequences of evaluation.*

Like the coordinators of other Deans' Grants Projects (and possibly of any project) who would effect notable change in a particular pre-service teacher-training program, we accepted a threefold charge that entails planning, implementing, and evaluating. The charge is as follows:

1. To modify the existing regular teacher-education programs (elementary and secondary) so that University of Wisconsin-Whitewater graduates will be able to function as competent teachers in roles that have been enlarged and changed because of recent federal and state legislation.
2. To implement the resultant training programs; that is, to undertake the various administrative tasks that will bring to fruition the appropriate courses and training experiences and will maintain the program during its infancy.
3. To plan and administer the evaluation of the recommended courses and training sequences or programs.

In this chapter, we discuss our experiences, mistakes, and understandings relative to the third charge — planning and implementing the systematic evaluation of a pre-service teacher-training program. The discussion may facilitate the work of university and college personnel who have not yet undertaken programwide planning and evaluation.

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Common concerns

We are cognizant of the fact that some readers may be seeking insights for the evaluation of undertakings other than pre-service teacher-training programs (e.g., university faculty attitudes, inservice programs, and video-tape materials). However, we speak only on the evaluation of the pre-service teacher-training program.

Of our three charges, the first two — planning a pre-service teacher-training program to accommodate "mainstream" legislative dictates and other felt needs, and making that program a reality — were seen to be challenging; indeed, exciting. The third — planning and overseeing the systematic evaluation of the various aspects of the new program — was viewed with trepidation, and rightfully so. Although we and the several colleagues who shared in the planning and/or implementing of particular aspects of the elementary or secondary program were committed to significant evaluation from the outset, we were but neophytes. Moreover, we had been unsuccessful in finding expert consultants in the designing and/or supervising of program evaluation. We did not canvass the teacher-training field for such assistance but our search efforts led us to conclude that comprehensive and significant evaluation of teacher-education programs is seldom undertaken. Instead, the practice seems to be to leave evaluation to the individual professor or department, and often such evaluation consists of nothing more than the use of questionnaires or follow-up letters. Indeed, systematic evaluation apparently is viewed by many faculty persons as a threat to academic freedom or ego, or as too difficult, too expensive, and of dubious worth.

Difficulties and costs notwithstanding, teacher-education institutions cannot be excused from systematic evaluation of their training sequences or programs because there is a pressing need to determine the effects of instruction. As professionals committed to the improvement of teacher preparation and of elementary and secondary schooling, we teachers of teachers must determine whether the recent changes made in our institutions' training-program emphases in answer to "mainstream" legislation, or for whatever reasons, will effect the desired results. Without some kind of substantive data about the consequences of our training efforts, we have only our unsubstantiated impressions and faith on which to base subsequent decisions on training, revising, or rejecting certain aspects of the redesigned programs. Since unsubstantiated impressions are hardly acceptable for determining the worthiness of a program or its features, we must seek solid evidence. There's the rub! Apparently, there is little agreement among teacher educators on what constitutes such solid evidence or how to attain it. One need but review the literature on the evaluation of teachers and teacher-education programs to realize that systematic evaluation is yet in its infancy. The realization may be disheartening to those individuals who, like us, naively accepted the responsibility to plan and conduct the systematic evaluation of a particular institution's teacher-education program.

It is such naivete (and its painful lessons) and our recent efforts to become less artless about the evaluation process that qualify us to discuss the topic of evaluation and to make some recommendations. Although hardly new to the expert, these observations may provide some encouragement and help to other novices.

The Need to Allay Faculty Concerns

Because the faculty members responsible for the evaluation effort usually are pressed to get the job done, they are likely to focus on practical and nonhuman concerns like the resolution of logistical problems and/or the development of instrumentation. Regardless of the constraints of time and resources, however, attention — early and continuous — must be given to what Hall refers to as "personal concerns"; that is, to the apprehensions of the various on- and off-campus program personnel concerning their responsibilities or degree of involvement in the evaluation undertaking and the consequences for them of the findings.

Discussing the intended evaluation effort with one's colleagues will reveal several who, indeed, are concerned about the implications of evaluation. Because today's highly competitive and insecure faculty persons are understandably anxious, some will be loath to take risks that might jeopardize their chances for retention, tenure, promotion, or merit raises. Such uneasiness can be allayed by assurances from the appropriate authorities that the findings of the evaluation will not jeopardize anyone professionally, and that the focus of the evaluation will be on the program rather than the individual serving the program.

The suggestion, then, is that the evaluation effort be described as a no-fault plan. In other words, the intent is not to determine who is to blame if certain promised competencies, learning activities, or other program standards are not forthcoming but, rather, to determine whether the goals are being realized as predicted and to identify the causative factors so that they can be eliminated, modified, or replicated.

The Need to Maintain Participant Responsibility and Candor

Allaying the fears of participants is not enough. The effort must be made at least to gain from each a commitment toward the common goals and the willingness to be both candid and reflective about the difficulties encountered in delivering the particular aspect of the program and its outputs for which he/she is responsible. Establishing appropriate participant attitudes may well be what is needed initially to implement a new program, seek substantive data concerning that program, or use the findings in making needed adjustments.

The Selection of An Evaluator

The selection of the evaluator or evaluation team is another major concern. It has been argued that evaluation should be conducted by an outsider or disinterested party, but we feel that the evaluation effort can be best undertaken by the program's own personnel, including the coordinator (i.e., internal evaluation). Five reasons for this bias come readily to mind: (a) By making the evaluation effort the joint responsibility of the faculty participants, the director or coordinator does much to allay the anxieties of the faculty and to maintain their commitment to the program goals and the evaluation effort. (b) By assuming the objective stance, the participants will be less partisan to their own (or their departments') areas of contribution. (c) The employment of an outside evaluator/evaluation team is costly in terms of money, faculty morale, and time spent to make the consultant familiar with program specifics and exigencies. (d) The outside evaluator, typically an occasional visitor, is hardly godlike and so is limited to one place at one time when the realities of the evaluation demand that he be omnipresent and omniscient. If the teacher trainees were confined to the campus setting or a single community, even a mere mortal or small team might resolve the diverse problems that complicate an evaluation effort; however, for institutions whose training terrain encompasses a wide geographic area and/or a multiplicity of schools, most of the evaluation tasks will have to be assumed by program participants (both university and public schools). The visiting expert thus might best serve as the instructor of evaluation and advisor to the coordinator. (e) By participating significantly in the evaluation effort and gaining a modicum of expertise concerning evaluation, the faculty and public school personnel will be able not only to continue to serve the ongoing evaluation of the program and the particular components for which they have an immediate interest but, also, to participate more meaningfully in the subsequent amending of the program design.

The Usefulness of an Existing Evaluation Model

Assuming that the program's faculty participants will be instrumental to the evaluation strategy, we suggest that they be made familiar with an established evaluation model so that it can be adapted to fit particular situations. One such model, The Discrepancy Evaluation Model (DEM), provides a useful framework that can accommodate a detailed evaluation design, particularly if the program is still in its early stages of operation. The DEM, as described by Yovorsky (1976), enables one to determine readily not only if program objectives or outputs (i.e., the stipulated competencies) are being attained as promised but, also, whether the necessary inputs (e.g., particular learning experiences, requisite materials, kinds of staff) have been provided and whether the enabling processes (e.g., particular field experiences, lectures) have occurred as intended. One strength of the DEM is its strategy. By juxtaposing the various input and process specifics that have been deemed relevant to the attainment of a particular output, phrasing key evaluation questions, and then gathering data to answer each question, one has a means for making at least educated guesses about causative factors. If, for example, the trainees do not demonstrate a promised competency (output) at a given assessment point, the evaluation data concerning the inputs and processes can be studied to determine why the promised output has not been forthcoming. Such instances indicate that program adjustments are necessary. Of course, the making of adjustments is not so simple when promised outputs are not attained, even though the inputs and processes deemed appropriate have been used. Still, even in these latter instances, the data can reveal which cause-effect assumptions have been faulty and need to be rethought. The second reason for favoring the DEM is the fact that it does not necessitate the comparison of one program with another. Instead, a program can be assessed in terms of itself and through the use of one set of evaluation data—data to be used only in determining whether the target program *itself* is delivered as designed and produces its called for outputs.

The Struggle to Determine Competencies and Their Standards

Regardless of the evaluation model to be used, if any, it must be determined which aspects of the program are to be evaluated and what the expectancies for these components are to be. Neither specification of what is to be evaluated nor determination of standards is an easy task. The latter comprises, in fact, two difficult tasks: specifying key measurable trainee characteristics and behaviors and specifying the criterion for each category of behavior.

Evaluators' discomfort indices rise noticeably when the particular characteristics and competencies that will be the determinants of trainee achievement must be identified because, typically, the competency statements are either so general that they defy measurement or so specific that they necessitate a myriad of factors. For example, what are the constituents of the competency announced in this promissory statement: "The trainee will be able to establish and maintain a warm emotional classroom climate"? Or, "The trainee will demonstrate the ability to use facilitative communication"? Or, "The trainee will be able to evaluate children's learning growth"? And where are the constituents of such goals discussed reliably?

Our own search of the literature for substantive research on or fact-founded analyses of needed competencies and their elements was time consuming and ended in disappointment: It turned up little that was useful to our cause. This observation is not meant to disparage either the writers' or researchers' efforts. Indeed, we feel that program designers should take current researchers' and writers' conclusions into account as they seek to identify the trainee competencies that will be generated from their programs' instructional experiences (Medley, Soar, & Soar, 1975). There appears, however, to be little specific research in or authoritative discussion of the particular components that constitute an identified competency or the relation of the components to that competency.

Nor did we gain examples relative to the competency/subcompetencies "set" as a result of asking representatives of other institutions how they had resolved this dilemma. Although the trainers for evaluation workshops sometimes provided examples of a competency broken into a set of subcompetencies, they almost always added a disclaimer like "...we do not recommend these....They are just illustrations."

Apparently, then, the subcompetencies decided upon as constituting a competency need to be based on the staff's collective intuitions, experiences, and analyses. If so, then the feeling of uncertainty that results from the realization that the validity of this competency/subcompetencies relation is suspect will have to be lived with.

Undoubtedly, our memories of the students we have observed in our roles as university supervisors and, before that, as cooperating teachers have contributed to our own skepticism. Occasionally, the student being observed did indeed demonstrate the several behaviors designated as attributes or subcompetencies of a particular competency. Yet we were not satisfied that he/she had demonstrated the competency itself. Something (intangible, perhaps) was lacking in his/her performance; something that defied description by other than such abstract terms as "authenticity," "spirit," "compassion," or "tone." His/her counterpart was the student who had failed to satisfy the observer's checklist of attributes for a particular competency although the evaluator felt confident that this trainee indeed had gained the competency. Conversations with other university supervisors and cooperating teachers about this enigma indicate that we had not stumbled on a discovery. The British educator, David Holbrook, alluded to the phenomenon in one of his books. Why, he asked, do some young ladies take to teaching as do ducks to water? He answered his own question in words akin to "Because, my dear, they are ducks!"

Such experiences and our fruitless efforts almost make us conclude that the search for the definitive competency/subcompetencies "set" is a search for the unicorn.

As noted previously, the task of determining the standards of competency can be disconcerting. The primary reason is that these standards seemingly must be quantified in order for the trainee or program component to be assessed. Thus, a particular number of right experiences, attitudes, behaviors, and skills and a certain percentage of correct responses is deemed requisite for adequacy. Such quantification indeed will provide a standard of sorts to which evaluation data can be compared. There seems, however, to be no substantive basis for determining how quantity translates into quality. In other words, what number of characteristics or percentage scores determine inadequacy and what determines adequacy? If that number is identified, from where did it come? Apparently, the program decision makers will again have to resort to pooling their intuitions, experiences, biases, and wisdom in order to decide how many of the specified characteristics will be requisite to each assessment point. Thus, although it can be stipulated that the trainee will attain, say, a minimum of 7 of these 10 characteristics and 9 of those 12 skills, there is no certainty that these particular 10 characteristics and 12 skills are crucial to teacher success, or that the designated number to be attained by the trainee separates the successful teacher from the failure. Such uncertainty, it may be argued, is to be expected as part of the teacher-training and teacher-evaluation business. Such an assertion, however, provides little comfort to the decision makers. For, in addition to knowing that the criteria on which the decisions to pass or fail, to certify or not to certify, are based on premises that are suspect, the decision makers also know that these decisions will shape the futures of both the trainees sanctioned and rejected and the elementary and secondary children to be taught by the former. Thus, the doubt remains that some stone rejected by the builders might well have become a cornerstone, the most honored stone of the building. Robert Frost, in "Mending Wall," wrote of two farmers, an apple orchard and a woodlot, and an unquestioning son's acceptance of his father's philosophy, but he could have been talking about decision makers (perhaps even faculty responsible for program evaluation?):

> Before I built a wall I'd ask to know
> What I was walling in or walling out,
> And to whom I was like to give offence.

Evaluation is Better Than No Evaluation

It will not take the new student of systematic evaluation long to note that irony, if not ubiquitous in evaluation, is, at least, frequently present. We, too, have been made aware of its presence several times. For example, starting with our initial efforts to develop an Elementary Education Mainstream Training Program, we have sought to be conscientious and systematic planners. In order to determine the regular education trainees' needed competencies for successful teaching in the mainstream setting, we conducted a survey of over 500 teachers; interviewed 50 area teachers and administrators with experience in mainstream education; surveyed the literature on performance-based teaching, particularly that focusing on the teaching of mainstreamed groups; consulted experts; visited schools; and attended conferences. The plan for evaluation was fashioned in accordance with the systematic approaches outlined by proponents of the Discrepancy Evaluation Model. Yet, as already noted, when we had to identify the specific characteristics and behaviors and the standards for competency and certification, we had little of science to guide us; and we had to base our decisions largely on our and other teachers of teachers' professional biases, intuitions, and experiences. Thus, the irony.

If one cannot count on authoritative conviction based on well-reasoned and extensive research, why should anyone bother to attempt systematic evaluation? Because until something better comes along, it is all we have.

Our position, therefore, is that less than exemplary evaluation is better than no evaluation. As committed, informed individuals and staffs participate in the evaluation of their programs and, thereby, extend their interest in and knowledge of the evaluation process and teaching acts, it is not unreasonable to conclude that some will then seek to contribute to the science and literature of evaluation. Without such involvement, evaluation is apt to remain inexact and infantile.

Selection of Instruments

Among the other evaluation tasks that require considerable expenditure of time and effort is the determination of the choice of instruments and strategies to be employed in the evaluation process. The questions of validity and reliability must be resolved. The selection of instruments to be used in the observation of trainees' teaching performance provides an example. Establishing validity and reliability for one's own instruments is infeasible because of the constraints of time and costs. To use existing validated instruments for the observation of teacher-trainee performance would be the answer if they could be used exactly as designed and did not necessitate much time, effort, or expense in training the observers. Authenticated instruments for the observation of teachers exist, but how many exist for the observation of student teachers — trainees — and can be used intact or in modified form for the observation of the "mainstream" trainee without faulting the findings? How many can be used by minimally trained observers is a question we did not attempt to answer. Instead, we chose a third alternative: to devise our own instruments, realizing that their validity and reliability may never be determined, but modeling them after some whose validity and reliability have been established. In this effort, we were guided by systems that focus on the coding of teacher performance through direct observation (Medley & Mitzel, 1963; Simon & Boyer, 1967, 1970).

Although the need to train personnel for the observation activities specified by certain established instruments may prevent staff members from using these instruments, any staff-made instrument also requires the training of observers so that they "see" and record the behaviors, as intended by the designers, and a reasonable measure of agreement will be present.

Instrumentation also will be needed to evaluate the program by means other than the observation of trainees. It is imperative, it seems to us, that the staff members seek data on the quality of the trainees' various experiences at practicum sites, of the sites themselves, and of the standards that have been identified.

For purposes of illustration, let us assume that a particular staff has determined that the indicators of a school's worthiness to serve as a student-teaching practicum site are (a) the availability of cooperating teachers who are experienced in the supervision of student teachers and in mainstream education, who are considered to be master teachers, and who are desirous of teaming with a student teacher; (b) the existence of certain desired specifics in the school's program; (c) the opportunity for the trainees to participate in desirable educational experiences which are made available through the school's well-planned inservice program; (d) acceptance of student teachers as fellow professionals in the classroom; and (e) participation of student teachers in significant non-classroom activities (e.g., parent conferences, staff meetings). The quality of a student-teaching practicum site is determined by the graduate assistant — the project observer — who visits the site three times. The designated evaluation instrument is a simple checklist containing all the indicators of quality. The observer should be favorably impressed with a site if he/she can complete the checklist to show all indicators are present. However, suppose that the site is depicted quite differently by the incidental comments of the university supervisor assigned to this school and those of two of the site's four trainees? Why the inconsistencies? Where does truth lie? Is one of the individuals inept or shirking her/his responsibilities? How do the other two trainees who have not spoken out feel about the site? The answers to these questions are not the concern here.

Our intent is to note that this imagined pre-service teacher-training program staff, like many real staffs, was not sufficiently foresighted when it limited the site-evaluation strategy to one kind of measure, and that an untested one. Still, the resulting circumstances should have been instructive. This staff now can modify its evaluation strategy and the determinants of quality for the student-teaching practicum site to include the written comments of the university supervisor, trainees, and cooperating teachers. All the tactics and materials providing data about the site then might be studied by a qualified interpreter who will share his/her conclusions with appropriate members of the staff. Assuming that this problem of instrumentation has been resolved, the imaginary staff can go on to other concerns. *How to use* the findings regarding this and other practicum sites would be the likely next topic. Possible considerations would include the means by which to improve the quality of desirable but faulty practicum sites.

Our discussion of some of the problems and anxieties that seem to be inherent in the evaluation process has hardly broached this aspect of evaluation. There also are, or so it has seemed to us, a myriad of little difficulties that must be coped with during the planning and implementation phases. Systematic evaluation does not open Pandora's box; however, it does evoke from program coordinators and staffs occasional minced oaths or extensions of Murphy's Law: "If there is a problem or difficulty out there, it will find you." Or, "The one sure thing you can count on doing is to commit an error of omission."

Evaluation Affects the Trainee as Well as the Program

Preliminary discussions of how the findings of the evaluation will be used will bring to the fore additional questions, such as, the evaluation of the trainee and issues that accompany such evaluation.

True, the intended focus of the evaluation is the newly designed or amended program, not the professionals and other personnel associated with the program or its beneficiaries — the trainees and, ultimately, 350 their employers and students. Thus, data will be sought regarding, for example, the availability, efficiency, and quality of the training personnel, printed materials, films, and readiness of the trainees (i.e., the program inputs). Also, data will be sought on the delivery and quality of the various instructional experiences in the lectures, demonstrations, field trips, modules, courses, and practica (i.e., the program process). Further, data will be sought on the various program outputs. The latter usually will be phrased in terms of what the trainee is supposed to know, be able to do, and, indeed, will do naturally and habitually. Although the assessment of the trainee — the primary beneficiary of the program — is not the concern in the evaluation of a teacher-training program, nevertheless, the evaluation of the trainee is inextricably related to program evaluation.

If it is found at any point of appraisal that certain trainees have failed to demonstrate the stipulated behaviors appropriate to the particular competency and the designated level of proficiency, what is to be done? Are these trainees to be failed outright, placed in a "holding pattern" at that point of the program while they prepare themselves for the next demonstration of competency, or permitted to go on with their successful peers, knowing that their deficiencies must be overcome at some designated deadline? If the latter option is the choice for resolving this particular problem, then how many deficiencies may a trainee accumulate before his/her fate is again at issue? How much time will be given to prove his/her worthiness? How many trials will be allowed the trainee to prove competency before being "washed out" of the program? Will the same appraisers serve during each demonstration or trial? Is there recourse for appeal?

Faculty members in a carefully planned and vaunted program probably have just as much of an obligation to trainees who fail to meet the announced expectations as to those who are immediately successful. There are always good students who will succeed despite inferior teaching or inadequate programs, but whether good students should fail in a program that is acclaimed for its excellence and concern for students is an issue that must be resolved. Many teachers of teachers may believe that it is virtually immoral not to allow a trainee more than a single opportunity to demonstrate a particular competency, but then one must ask whether two trials are the appropriate number or three.

Nor is the case of the trainee who has demonstrated competency without its issues. If certain trainees demonstrate adequacy in certain competencies during a particular teaching practicum or simulation, are they deemed to be proficient in those competencies thereafter? Or are they to tremble in fear until the final judgment? For practical reasons, competency demonstrated once may have to be assumed to be permanent. However, published research on the stability of teacher behavior casts a shadow on the assumption of the permanency of competencies (Rosenshine, 1970). Again, the specter of numbers rears its head: If competency demonstrated once is not enough, then is twice enough? Three times? Each time?

At least one additional problem of "numbers" arises in the evaluation of trainees and, thence, of the programs. How many trainees must succeed (demonstrate proficiency in each stipulated competency area) in order for the program or its aspects to be considered successful? Because a primary purpose of program evaluation is to determine whether a program or its parts "work" (i.e,. whether the designated inputs and processes produce the announced outputs), it seems reasonable to conclude that if the appropriate number of trainees, whose behaviors are the outputs of the program, prove themselves proficient, then the program works. But what is the appropriate number? A majority? 75 per cent? 90 per cent? 99 per cent?

The Threat of Negative Consequences

The problems that thwart a project staff undertaking systematic program evaluation seemingly do not cease. Unless the negative consequences that threaten to result from the evaluation effort are anticipated and guarded against, the staff's best efforts may be undermined. Three such consequences come readily to mind.

1. Trainees are hypercritical of those aspects of the program (and the particular faculty members responsible for them) that seem not to have

immediacy for the attainment of a stipulated competency. The cause of their negativism is the implementation team's placing undue emphasis on the identified output standards, that is, on what and with what proficiency the trainee will know, be able to do, and, indeed, will do at various points along the training continuum until, presumably, through accumulation, he/she has acquired what he/she needs for successful entry to the teaching profession and the mainstream classroom.

It is, of course, appropriate to make the program's output standards public so that the trainee will know the kinds of specific skill or knowledge that he/she must attain and be able to demonstrate. However, by making those standards known at the outset and frequently reminding the trainee of their importance, the program administrators will rivet the trainee's attention to these goals and tunnel vision may result. Seeing only the goals ahead, many trainees will expect, even demand, that each course, module, simulation, practicum experience, task, and reading be shown to have particular significance to the realization of a competency goal. Although it may be argued that the trainee who pays dearly in time, money, and energy to become a teacher has the right to know just how coursework and practica contribute to his/her needs and goals, the effect of the trainee's demands for relevancy may increase tension, limit the program, and cause the sacrifice of learning activities and emphases that seemingly are not germane, cannot be visibly demonstrated in a teaching episode, or cannot be substantiated except through opinion.

Our new Elementary (Mainstream) Teacher-Training Program, for example, features, each semester, the Personal-Professional Seminar. A series of activities directs the trainees to reflect about themselves in relation to a particular problem, issue, question, or circumstance and then to share their conclusions with their peers. Interaction follows. A question that is asked of the trainee more than once is, "What are your personal reasons at this time for seeking to become a teacher and, particularly, to become an elementary teacher who will be working in the truly heterogeneous classroom?"

The program designers justify the seminars and these reflection-discussion activities by their potential for honing the trainees' listening, speaking, reasoning, and group skills; for shaping trainee attitudes; and, particularly, for enabling the trainees to determine for themselves whether they wish to teach in the mainstream setting. It is believed that some trainees, who have learned to know themselves and the teaching profession better, will choose not to continue in the program, and this conclusion is as it should be. Those who continue should know from whence they came and where they are going. At this time, we do not know the effects of these activities and we may never know exactly. Furthermore, we cannot describe the outputs of these activities by measurable means. Still, we judge the seminars and their activities to be of value to the trainee and the program and we would be loath to abandon the seminars solely because they cannot be tied directly to some demonstrable teaching competency or their effects substantiated. So far, the trainee feedback has been favorable. Yet it is possible that in the future some "show-me" trainees will challenge the relevancy of the seminars. The sacrifice of courses or emphases whose worth is "felt in the bones" but which cannot be proven to have specific bearing on teaching behavior is a negative consequence that may result from the evaluation effort.

2. Undue emphasis on measurable specifics will result in the trainees' mistakenly concluding that the (program) parts are greater than the (program) whole; that the sum of the individual actions or moves within the teaching act equal that act; and that teaching is craft only rather than craft and art. It is said that Mark Twain's wife, thinking that she could dissuade the writer from his constant swearing if she herself took up the art of expletive, resorted to swearing each time he swore. After quietly enduring her efforts for some time, Twain finally noted, "My dear, you have the words but not the music." The master teacher (or the evaluator of the moment) may find it appropriate to echo Twain when a trainee imitates whole or piecemeal the overt actions of particular teachers but ignores so much that is covert in the teaching of these mentors.

It is appropriate to subdivide the teaching act into its components for the purposes of program and trainee evaluation. It may even be appropriate to focus on these specific components for the purpose of instruction. Certainly, it would be helpful if instructors and trainees used the same nomenclature and had common samples of teaching to which they could allude. Low-inference specifics (i.e., outputs phrased so that very little is left to interpretation) in such instances are useful, if not requisite. We must, however, be cautious not to communicate inadvertently to trainees that the mastery of measurable specifics counts most in teaching. Rather, we should let it be known that these specifics result only from our best hypotheses, at this time, of what constitutes the teaching act but that a sense of timing, proportion, love, and certain other intangibles also are requisite, and therefore it is as difficult to describe teaching as it is to describe the wind. Otherwise, trainees may conclude mistakenly that teaching is mechanistic in nature. Staff planners must guard against such distorted views of teaching as they design the instructional program and plan the evaluation of that program.

3. Conformity demands the sacrifice of certain desired trainee attributes. The causative factor here may be the hidden messages that are inadvertently embedded in the lists of outputs. In recent years, educators have been made aware of the hidden messages of a school (e.g., the unstated expectations regarding behavior, dress, and choice of friends) and their varying effects on students (Jackson, 1968). So, too, must we program designers and evaluators be alert to the possibility of hidden messages in our efforts.

One such message may be what Nelson (1968) called "Stress on adjustment rather than on expansion." Essentially, Nelson's argument is that teacher-education programs that focus on behaviorally defined competencies thereby emphasize the appropriateness of modifying trainees' behaviors to make them more like those of the majority rather than emphasizing the appropriateness of expanding the trainees' vision.

Nelson's observation can be applied to those evaluation designs that focus on outputs that are specific measurable behaviors. Here, the hidden message perceived by the trainees in a particular program reads something like, "These professors preach innovation, creativity, spontaneity, experimentation, individualization, and humanism; but they pay off on conformity, conservatism, the traditional, and authoritarianism. I know which side my bread is buttered on." Such a reading early in a program's operation may be faulty. It may be that more than lip service is being paid to creativity, humanism, and experimentation. However, if the evaluation instruments used to assess the program seek data on specific behaviors, the trainees may interpret the whole program as calling for them to approximate norms, and as rejecting geniuses or Thoreau's independent drummers. Instructors, too, may change to teaching not as they yearned or what they wanted to teach, but as they know they must to enable trainees to attain adequacy or proficiency in competency after stipulated competency. In time, the hidden messages become the curriculum, and zest, creativity, humor, spirit of inquiry, vision, and program authenticity are sacrificed.

HOW TO OFFSET NEGATIVE CONSEQUENCES

Obviously, any action taken, any decision made, any educational program or evaluation design developed will have consequences and ramifications. Not every one can be anticipated. Perhaps the best that we conscientious, rational decision makers can do is to consider carefully the costs and consequences of each action, each trainee growth goal or competency proposed; determine whether the venture is worth the consequences; and then act, after pledging that we will remain flexible and will attempt to correct our mistakes as we discover them, but without castigating ourselves for having made them since they are inevitable. Knowing that the risk taking will affect not only the planners, managers, and evaluators of a proposed teacher-education program but, also, the teachers-to-be and, through them, the exceptional and nonexceptional children, we should not hurry into the planning of the evaluation.

It is understandable that the personnel responsible for a program want it to meet the evaluation standards set for it. However, they must not view evaluation as synonymous with grading ("We got our A in Program, but ol' so-and-so didn't score too well!"). Such a view may well result in insufficient risk taking, lack of innovation, focus on the trivial, and the sacrifice of valued activities which cannot be readily substantiated. Perhaps the best safeguard, then, is to view evaluation with calm, not fear, and as but another means of gaining information and insight about the program. Above all, the evaluation should not wag the program.

A Closing Comment

The observations shared here are not those of experts in evaluation but, rather, those of two teachers who have learned something about systematic evaluation through search, trial and error, and reflection while wrestling recently with some of the problems discussed in this chapter. With our heightened awareness of the special and unique challenges inherent to the evaluation of a pre-service teacher-training program has come this opportunity to share our learning process; we hope, in so doing, to foster further sharing and growing in the demanding area of program evaluation.

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Mainstreaming and Teacher Re-education: A Rationale for Reform

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ABSTRACT. *After reviewing studies that examine the impact of schooling upon the cognitive and emotional development of pupils, the author calls for a comprehensive reform in teacher education. Before children can be mainstreamed effectively, the mainstream must be de-polluted. The need for such change is now and includes broad implications for pre-service teacher-education programs.*

In 1882, William James concluded one of his famous talks with teachers with an optimistic review of the state of education and the future of teachers. He noted,

> There is perhaps no more promising feature than the fermentation which for a dozen years or more has been going on among teachers. In whatever sphere of education their functions may lie, there is to be seen among them a really inspiring amount of searching of the heart about the highest concerns of their profession. . . . The outward organization of education which we have in the United States is perhaps, on the whole, the best organization that exists in any country. The state school systems give a diversity and flexibility, and opportunity for experiment and keeness of competition. . . . All these things, I say, are most happy features of our scholastic life, and from them the most sanguine auguries may be drawn. (James, 1958, pp. 21-22)

Yet today, in 1984 minus six and counting, what do we see of the happy organic relation between children and teaching and the curriculum? Also, what do we see of the optimistic predictors of future success?

Few positive indices can be found for the current state of education. Instead of sanguine auguries, we see harbingers of gloom and doom, such as zero-growth budgeting superseded by retrenchment, declining enrollments, and the diminution of innovation. Also, there is increasing community concern about the management of the schools and growing public criticism of curriculum content. It seems that in the 1970s the general problem of effective schooling for all children appears almost insolvable. Many critics would claim that the educators of the 1970s have lost their way. Cynical comments suggest that educators today are similar to pasengers scrambling for deck chairs on the next voyage of the Titanic.

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J.A. March at Stanford underscored the significance of our response to the present crisis. He warned us (March, 1975) that some of our responses may be totally inadequate: For example, some educators tend simply to retreat and agree with Christopher Jencks that the over-all process of schooling is meaningless; research studies often have shown that school effects accumulate, at best, to zero. The life of the educator in retreat becomes simply a series of numerous minor events with minor obligations that have no point or consequence. Educators may be living out lives of quiet desperation, to use Thoreau's phrase.

A second possibility is that we will turn inward and retire from the struggle or, perhaps, move toward self-aggrandizement. We may become excessively concerned with our own careers and positions and the petty indulgences of personal pleasure (March, 1975). In one sense, March has echoed F. Scott Fitzgerald's observation of the 1930s as a period for creative artists when all the wars were fought, all the gods were dead, and all faith was shaken. From this observation we might draw an analogy for the 1970s: All that is left for educators is to watch out for themselves, protect their positions through seniority, and hold survival as a primary goal.

The third possibility suggested by March is that we face the harsh reality that American education has not delivered in accordance with its promise. We are, metaphorically at least, a light year away from effective school programs that will promote the intellectual and emotional growth of all pupils. Thus, the problem is substantial. In the 1970s, the New Frontier no longer exists, the Great Society has disappeared, and the New Federalism also has vanished. These massive programs either have faded from memory or whimpered into extinction. In 1963, John F. Kennedy pointed out that one-third of the nation was ill-clothed, ill-housed, and inadequately educated; in 1977, it seems that we have made little progress toward reducing these proportions, especially in the last category — education.

If we look at the harsh reality of schooling, what do we find? What is life like in regular classrooms? What is the quality of learning environments in mainstream education? It is important, obviously, to examine most carefully these questions. As we work assiduously to admit previously excluded children to mainstream education, do we need also to work as assiduously to change what it is they are entering?

Although I do not wish to perform yet another educational autopsy on the effects of schooling, I want to present a few brief comments on the current reality in order to buttress the rationale that the need for over-all school reform is pressing and will not disappear. Also, it is my view that mainstreaming and school reform are closely linked, like the two sides of the same coin.

Three general areas of schooling are reviewed in the rest of this paper: The first two are the effect of schools on the intellectual and psychological development of children, and the third is the teaching process itself, as commonly practiced in most classrooms.

Impact of Schooling on Intellectual Development

A national study, Project Talent (Flanagan, 1973), has provided us with valuable insights to the eternal question of schooling: "Do students master academic content?" Flanagan's findings do very little to brighten our day. He found, for example, that in the English curriculum, less than 65% of high school students could understand Robert Louis Stevenson's novel, *Treasure Island*, hardly the most intellectual of readings. Less than 36% could understand Rudyard Kipling and only 8% could understand Jane Austen. These studies were done on a massive scale over the decade 1960-1970. Most depressing is the fact that he found very little change in these percentages over the 10-year span.

Scriven (1972) examined the effect of social studies education and found that over two-thirds of the high school pupils in this country could not produce a reasoned argument on the pros and cons of democracy as a form of government. He also found that almost 70% of high school students resolutely opposed every practical instance of free speech.

In a more recent study by Renner and his associates (1976), the results in biology and chemistry were equally distressing. The investigators found that 64% of the students studying biology were not capable of thinking at an abstract level, and 92% of the students in chemistry were similarly incapable of understanding academic content at the required abstract level.

These various findings mean that most pupils have not experienced the educational process in a manner that provides them with the ability to process the fundamental concepts of thought in those academic disciplines. To some degree, of course, this conclusion is not really surprising. Ralph Tyler produced a series of studies in the 1930s that clearly indicated that teaching academic content to pupils in the traditional basic sense was a hopeless enterprise. He found that pupils retained only 50% of the academic content of formal disciplines after one year, and less than 20% after two years. To make the point, he noted somewhat wryly that most students thought all banks paid 6% interest on savings accounts because that was the figure used in the math textbooks of the time for teaching compound interest computation (Tyler, 1933). Parenthetically, I would add that as the public demand increases for "basic education," we must remember that we already have gone that route. To return to the basics is clearly a non-event or an invitation to recycle the failure implicit in the content acquisition model for learning.

Impact of Schooling on Psychological Development

If we look at the impact of schooling upon all levels of psychological development we find a similar set of distressing findings. Studies by Ralph Ojemanin, Richard Suchman, James Coleman, Charles Silberman, and others have found that the longer pupils remain in school, the more evident are declines in positive self-concepts as learners, pupil autonomy and exploration, and intrinsic motivation (see summaries in Sprinthall & Sprinthall, 1977, Ch. 21). Silberman coined the term "the mindless school" to suggest, essentially, that too often we place students in learning environments in which what they learn is not understandable and why they are learning it is problematic, with a negative impact on overall development. Jackson's (1968) excellent account of life in classrooms indicates that all too often teachers are involved in traffic management rather than instruction. His observations have been cross-validated by such empirical studies as Gump (1975). Routine classroom management activity tends to emphasize socialization rather than the growth of psychological maturity in pupils.

Against criticisms of overgeneralization, it is fair to say, based on these studies, that the general curriculum in too many schools tends to be too narrow in focus and too pedantic in orientation, and to be based on content that assumes but does not promote either the psychological or intellectual development of pupils. Many pupils simply do not understand the purpose of schooling nor the material they are asked to learn. Instead, all too often, they have learned only to engage in an elaborate pretense or conspiracy of silence to repeat back what the teacher wants them to say.

The Content of the Teaching Process

What about the teaching process itself? Can we find evidence to provide us with some important information on the actual process employed in most classrooms in the country? In 1912, a series of studies was published that illustrated what has come to be known as the Flanders (1970) rule: 60-70% of the time in a classroom, the teacher is talking, and 60-70% of that teacher talk is in the form of short rote-like questions. Essentially, this process asks students to recite the textbook. The teachers in all subject matter asked such questions at the rate of four times per minute in the 1912 study. In the 1960s, another series of studies indicated that the ratios still held: Teachers were still doing between 60-70% of all talking in the classroom and two-thirds of the talk was in the form of direct questions requiring short rote answers. The only change was that the cycle was now down to three times per minute (see summaries in Sprinthall & Sprinthall, 1977, Ch. 2).

Goodlad and Klein (1974) studied a random selection of 156 elementary classrooms across the country and brought in the same results. The investigators noted,

> At all grade levels the teacher to child pattern of interaction overwhelmingly prevailed. This was one of the most monotonously recurring pieces of datum. The teacher asked questions and the children responded usually in a few words and phrases. It is fair to say that this form of interaction was the mode in all but 5% of the classrooms. (p. 51)

The bottom line on studies of teaching styles can be found in Brophy and Good (1974). They examined how teachers respond to pupils who were thought to be slow learners and observed that the teacher waited less time for such pupils to answer, did not follow up on incorrect answers, rewarded inappropriate behavior, and provided little positive feedback. The picture could hardly be more depressing.

This state of affairs might be summed up in a paraphrase of an analogy by Paul Tillich: Too often, teaching is throwing answers like stones at the heads of those who have not yet asked the question.

The State of the Art of Teacher Preparation

This is not to say that classroom teachers are the culprits in our depressing story. Whether we like it or not, they are the products of our pre-service and inservice education programs. If we look for a moment in that direction, we find even less to brighten our view today. A massive study by Joyce, Howey, and Yarger (1976) indicated that inservice teacher education is close to total disarray. The data were collected from more than 1,000 school personnel and community, congressional, and state department members, and a review of some 2000 volumes and 600 journal articles. The over-all findings indicate that inservice education is at best weak or impoverished and, on any scale, a relative failure.

The relative effectiveness of pre-service teacher-education programs is a long story in and of itself and need not be repeated here. Instead, I will say that both inservice and pre-service teacher education need a broader framework in order to become effective and to meet the increased demand for quality schooling. Teacher education cannot be simply a series of discrete skills that are divided by subject matter and divided again by teaching methods. We cannot simply add on a few new skills to either pre-service or inservice programs or graft on some bit of additional new content. Clearly, such changes will be too little and too late.

Before significant change can come about in the quality of education which pupils experience in classrooms, it is my view that we need to stimulate the personal and professional developmental levels of teachers.

Teaching teachers a few human relations skills in brief "weekend" workshops leads to no change; the skills do not transfer to the classroom. Observational studies indicate that if one returns to a classroom three months after such an educational experience, one finds no evidence that the teacher ever went through the training (Rustad & Rogers, 1975). The reasons for such findings are obvious: Teaching is a highly complex activity. We cannot simply change one variable, such as learning one new skill, and expect it to be incorporated into the teacher's teaching style or to be generalized to over-all teaching performance. It is a myth to think that we can focus on one variable and change the general learning atmosphere in the classroom. We must simply work on a broader scale.

TEACHING AND THE CONCEPTUAL LEVELS OF TEACHERS

In our own Dean's Grant Project at the University of Minnesota, we have been working as a team[2] to develop a teacher-education program that will stimulate both the professional and personal levels of the teacher. Our work is based on some empirical studies conducted by Hunt and Sullivan (1974) at the Ontario Institute, and the theories of, for example, O.J. Harvey, Bruce Joyce, and Lawrence Kohlberg. These theorists have suggested, using somewhat different rhetoric, that humans who process experience at higher levels of developmental stages will be more adequate as classroom teachers. Hunt and Sullivan refer to the process as Conceptual Level (CL) and indicate that teachers at higher conceptual levels provide a more facilitating learning environment for their pupils. High conceptual level teachers exhibit a greater repertoire of teaching styles and are able to use more of the models of teaching, in the sense of Joyce and Weil (1972). Such teachers are more responsive to individual differences. They can employ children themselves as educational resources, are more empathic in their understanding and response to pupils' emotions, are capable of asking higher order questions in their classrooms to promote self-exploration, and are more indirect (in the Flanders system) in their approach to teaching (Hunt & Sullivan, 1974). The conclusion is that teachers at higher stages of development are more advanced as professionals. They can both think and do in the classroom at high levels of effectiveness. We are not talking simply about a higher level of intelligence; in fact, one of the great difficulties has been the common misperception of equating conceptual development with intelligence. The studies by Hunt and his colleagues do not imply that CL is synonomous with IQ; "conceptual level" refers to a much more complex function — the ability to process human experience at a more complex level in both thought and feeling.

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[2] Other members of the team have included James Ysseldyke, Lois Erickson, and Stanley Deno, Department of Psychoeducational Studies, and Kenneth Howey, Department of Curriculum and Instruction.

What are the implications of conceptual level? If we accept the premise that teachers who process at higher stages are more adequate professional educators, what does this premise hold for the mainstream question? A recent volume by Reynolds and Birch (1977) on issues in mainstream education contains a chapter, "The Interface Between Regular and Special Education," in which the authors suggest that for mainstream education to work, teachers will have to operate at complex levels of professional activity. The latter is broken down into a series of domains that includes how the teacher arranges the space in his/her classroom; what settings the teacher provides for teaching and learning activities; what materials the teacher uses; the classroom management techniques that are employed; the quality of the social environment; the rule system that the teacher follows; the content of the curriculum; the degree of structure; and the instructional method employed. In each domain, Reynolds and Birch have provided descriptive scales that detail the different levels of the teaching-learning interaction. If one examines the scales, in every instance it is clear that teachers will have to operate at a high level of professional activity to increase the accommodative capacity of their classrooms. That is, teachers must have at their fingertips a broad repertoire of teaching styles; they must be able to respond to individual differences, acknowledge the wide range of individual differences, and modify curriculum materials to provide a constructive educational match between learning activities and the levels of the learners. Examples of the Reynolds and Birch descriptive scales are given in Tables 1 and 2.

It is obvious from the scales that the more complex activities will provide for more adequate learning outcomes. If one examines these scales in relation to some of the earlier sections of this paper in which there were outlined the present inadequacies of schooling in terms of curriculum content and teaching styles, it is apparent that most classrooms in this country would have to be rated low, that is, at the first or second level of functioning.

The scales are serving as guidelines for our project. Because they have not yet been standardized, we cannot employ them directly, but we are able to use them as theoretical and behavioral descriptions of goals for teacher-education programs.

For the past two years, we have been finding out just how complex the issue of teacher education is.[3] We have found that we can make little change if we simply tag a new three-credit course (perhaps even named "Mainstream Education and You") to an already existing curriculum. That would be like dusting off the human relations curricular packages of the 1960s and replacing "black" and "Chicano" with "MR," "TMR," and "Multiply Handicapped." A few tinkering adjustments or cosmetic ap-

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[3] For an extended description of the project, see S.N. Oja & N.A. Sprinthall, *Character potential: A record of research* (in press).

Table 1

Learning Environment Scale[4]

Control of and Responsibility for Environment

1. Each individual class and the school is a rule-governed operation; with rules based almost totally on the teacher's "police" power and competencies.
2. Students share occasionally in discussion of how the school environment shall be managed. A degree of "consent of the governed" is achieved.
3. Formal arrangements are made for the regular involvement of students in governance — as in student government, student-management of classroom materials, weekly class meetings or the like.
4. Individual students and groups of students are given special training and responsibility for management of much of the school environment and processes. Included are technical matters such as running audio-visual machines, administering competency exams, orienting new students, and showing the school to visitors. In addition, training may be included in counseling skills (listening, reinforcing, etc.) and other aspects of interpersonal and group behavior.
5. Students share significantly in the governance (policy-making and administration) of their classes and school. Their obligations run to other students as well as to school officials; they are expected to help make the learning environment productive. They receive instruction, where necessary, to help them take responsibilities. The teacher shares in all of this as well, but gives particular attention to instruction for constructive initiatives and "autonomy" by students.

plications to the surface are not sufficient. Business as usual in teacher education will not do.

We see the current problem of mainstream education as providing all educators with the chance to rethink and synthesize how all teachers, both pre-service and inservice, can be trained to fulfill the mandates of least restrictive environment, individualized educational plans, and due process. Thus, we see the present as the chance for a major overhaul of the present curricular content and process of teacher education. Also, we view the present as the opportunity to deliberately try out new approaches that are designed to promote the over-all professional development of teachers. We need deliberate innovation.

Conclusion

Essentially, what I am pleading for is a new synthesis of theory and practice for pre-service as well as inservice education. This means that counseling and school psychology professors will need to expand their

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[4] Source: M.C. Reynolds & J.W. Birch, *Teaching Exceptional Children in All America's Schools.* Reston, Va.: Council for Exceptional Children, 1977, p. 142.

Table 2

Learning Environment Scale[5]

Social Environment

1. Students are expected to work essentially alone as far as instructional tasks are concerned. Student-student relationships tend to be non-sharing, even competitive. The teacher rewards individual performance and seems non-deliberate about group processes.
2. Students work mainly in isolation, but occasionally in small groups. The teacher praises and supports friendly interactions, but no systematic provision for education in group processes is provided. Evaluation tends to be individually oriented and to encourage competition.
3. Students work in small groups frequently and must share materials. All records are individual. Students are expected to learn to work with each other, but goals are nonspecific.
4. Students are clustered so that they can interact freely. Some group projects are assigned with considerable frequency. Group projects are evaluated informally, but grade records emphasize individual achievements. Social skills are valued.
5. The development of positive social skills and attitudes is one avowed objective of the teacher. Students are expected to interact and share with each other and to help one another. Sometimes they work on group projects, dividing up work. The teacher assists in group process and rewards effective group work. Students have every reason to be mutually helpful. Definite efforts are made to provide socially integrative experiences for exceptional students.

vision beyond individual counseling and isomorphic assessments; educational psychologists will need to drop some of their more esoteric and heuristic approaches to classroom learning; special educators will need to forget (at least) some of their excessive fascination with their own disciplines. As a somewhat cynical friend of mine once remarked, "English educators need to realize that a pupil's world doesn't begin and end between Beowulf and James Joyce, nor Social Studies education between the Tigris and Euphrates and Yalta."

All of us will be required to give up some of our academic autonomy. The goal, however, can be attractive. An interdisciplinary and cross-professional program for pre-service and inservice education is a major and remarkable opportunity. The serious and virtually unmistakable implication for the mainstream movement is that such a chance is at hand.

We will need to develop the ideas and practices but, most of all, we will need men and women of vision and leadership. As I view the current educational framework, I would say that the responsibility for training such teachers is ours.

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[5] Source: M.C. Reynolds & J.W. Birch, *Teaching Exceptional Children in All America's Schools.* Reston, Va.: Council for Exceptional Children, 1977, p. 139.

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Some Final Notes

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The project activities described in the preceding chapters of this volume illustrate the kinds of changes that are underway in the curricula of certain schools of education across the country with the support of Deans' Grants from the Bureau of Education for the Handicapped. Basically, the activities center on the renegotiation of roles and relationships: of teachers, specialists, and administrators in the public school systems and of the educators in the schools of education who prepare such personnel to work in the public schools. The stimuli for these renegotiations are the judicial and legislative mandates under which the public schools are operating on where and how children with learning and behavioral handicaps shall be educated.

Future historians may pinpoint the academic year of 1977-78 as the most remarkable in the education of children with special learning needs:

- Public schools face the mandate of literally searching out and enrolling every handicapped child, no matter how profound the handicap, in an educational program that is appropriate to the child.
- Public schools are required to write individualized educational plans (IEPs) for all handicapped children, that is, to form teams of school personnel to assess the educational needs of each handicapped child and to specify in writing the goals, objectives, schedules, placements, and plans for evaluation and review for that child.
- Public schools must bring necessary special services to pupils whenever it is feasible, rather than to move handicapped children to special sites. Thus the barriers between regular and special education must be removed and new roles must be defined for regular and special education teachers in relation to each other and to the children who need special services.
- Public schools must seek the participation of parents and handicapped children in making plans for and decisions affecting the children; parents must be given full access to all records on their children, and schools must observe the children's and parents' rights to due process in the event of disagreement.

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[1] Chairman, Department of Psychoeducational Studies, and Director, National Support Systems Project.

These innovations have their roots in the set of adjudications and legislation that culminated in the passage, by the 94th Congress, of Public Law 94-142, The Education for All Handicapped Children Act. Although the President signed the bill in 1975, the provisions became effective in the Fall of 1977.

To most observers, the events leading up to Public Law 94-142 were an extension of the Civil Rights movement to handicapped persons. The relevant adjudications were based primarily on the equal protection and due process clauses of the Fourteenth and Fifth Amendments, respectively, of the U.S. Constitution. From these amendments there were derived judicial interpretations that are the basis for the principles embodied in Public Law 94-142. The most important principle, which is leading to the restructuring of public schools and, hence, of collegiate teacher-education programs, is that the educational placement of handicapped children shall be determined according to the *least restrictive environment*. To insure that the provisions of the law are carried out, the Congress gave the U.S. Office of Education in general and the Bureau of Education for the Handicapped in particular a vastly greater role than ever before. As part of this responsibility, the BEH established the program of Deans' Grants Projects and provided for technical assistance for them.

The changes demanded of the public schools impact strongly upon the colleges and universities that conduct teacher-preparation programs. In a larger sense, schools of education must carry on two different but interlocking processes of change: (a) They must revise their traditional curricula to prepare regular and special education teachers and other personnel in the knowledge and skills that are necessary to observe the principle of the least restrictive environment. (b) They must reorganize their traditional structures to make the new curricula possible.

In order to delineate the magnitude of change that is required, a brief overview of past organizations for the delivery of services to handicapped pupils in the public schools follows.

The Tyranny of Tradition

In most school systems of the United States, the administrative arrangements for children with special education needs well into the 1960s (and, for many schools, even into the 1970s) could be described as based on a "two-box" theory. Under these arrangements, two separate educational streams were operated in the same school system and, often, within the same school building: one set of classrooms for "normal" children and another set for handicapped or "different" children; and one set of teachers who were considered regular or general and another set of teachers who were considered special, that is, who worked only with exceptional children. This "two-box" arrangement extended to teacher-preparation centers: Regular and special education teachers were enrolled in separate programs and certified differently by the states. Going into the 1970s, states offered an average of seven or eight different kinds of special education teacher certifications whose labels corresponded to categories of handicapped children.

The premise of this "two-box" theory was that children with handicaps are largely unlike "normal" children. It was assumed that teachers prepared to work with nonhandicapped children were incapable of understanding children with handicaps. The situation, according to Sarason (1978), was predicated on an apparent belief in different psychologies.

> To understand and educate mentally retarded students required theories and techniques that were different from those required for "normal" human beings. (p. 8)

A number of special educators recognized the specious reasoning behind the "two-box" theory. They urged the assessment of handicapped children in terms of education variables rather than their handicaps. These educators began to look for new ways to educate handicapped pupils.

THE ORIGINAL CONTINUUM MODEL[2]

A somewhat more complex administrative model for the organization of special education programs emerged in the 1960s. Sometimes described as a cascade or continuum of administrative arrangements, the model (see Fig. 1) contained more than just two kinds of "boxes" along with some distinctive features.

1. It proposed special education supports for regular education classrooms to enable children with exceptional needs to be maintained there.

2. It proposed that children *not* be classified by handicap and given permanent special placements on the basis of those classifications, but that children be moved to special stations according to their educational needs only for as long as necessary, and that they be returned to regular classrooms as soon as feasible; no indelible labels were required thereby. Educators have known always that the total number of children served in special education settings over time greatly exceeds the number served in those settings at any given time.

3. It proposed the breaching of boundaries between special education and regular education so that students could be moved back and forth easily to meet their educational needs.

4. It proposed more interactions and collaboration between regular and special education staffs to permit the sharing of responsibilities for students rather than the immurement of each staff in a separate "box."

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[2] Parts of this discussion have been adapted from the new book on mainstreaming by M. C. Reynolds & J. W. Birch, *Teaching Exceptional Children in All America's Schools.* Reston, Va.: The Council for Exceptional Children, 1977.

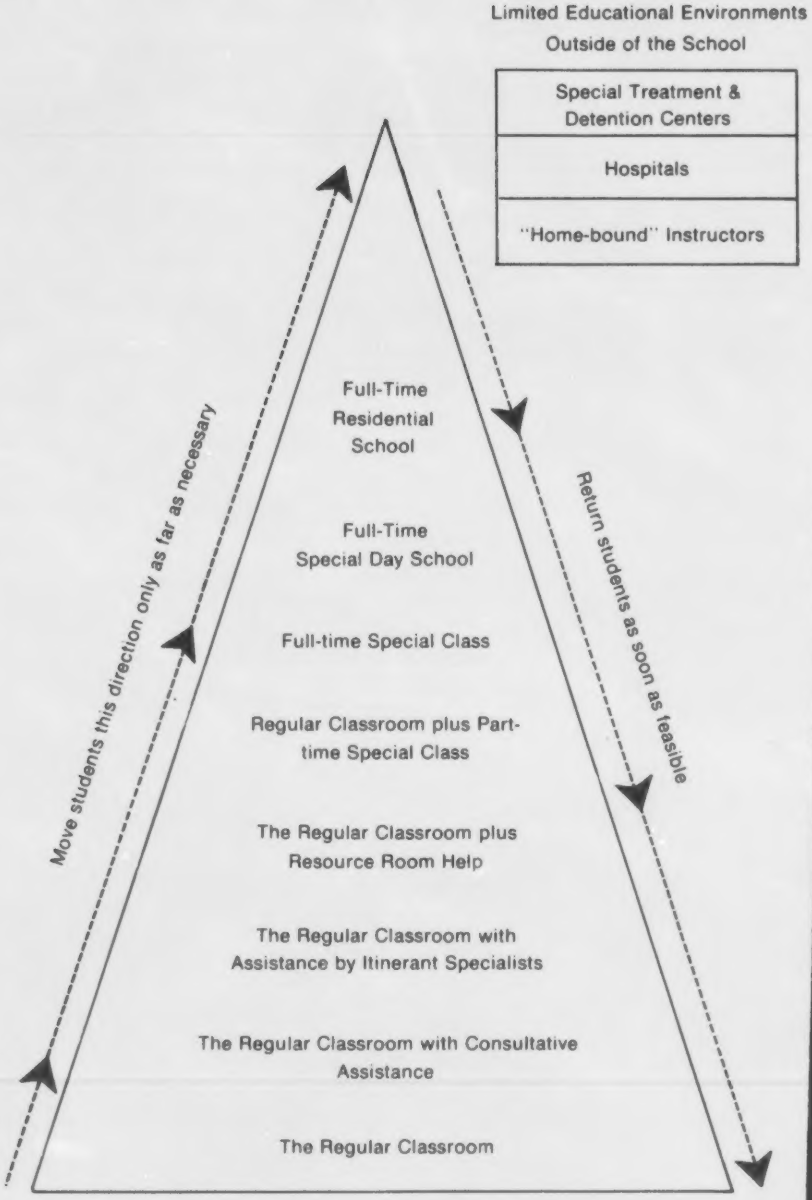
Limited Educational Environments
Outside of the School
Special Treatment &
Detention Centers
Hospitals
"Home-bound" Instructors
Full-Time
Residential
School
Full-Time
Special Day School
Full-time Special Class
Regular Classroom plus Part-time Special Class
The Regular Classroom plus
Resource Room Help
The Regular Classroom with
Assistance by Itinerant Specialists
The Regular Classroom with Consultative
Assistance
The Regular Classroom
Move students this direction only as far as necessary
Return students as soon as feasible

Fig. 1. The Special Education Cascade.

5. It proposed careful justification for the removal of a child from the regular school environment, especially when the removal was away from both home and school environments (i.e., to residential centers).

Despite its popularity, the cascade model was open to a variety of criticisms. The most telling is that it was too much oriented to place, that is, to administrative structures that stressed the provision of special services in particular places. Although some schools of education worked with public schools to prepare new special teachers to make the cascade model a reality (see Deno, 1973), most teacher-preparation centers continued to adhere to the "two-box" theory; regular education and special education were still viewed as separate and incompatible systems.

It is true that special educators themselves had been largely instrumental in initiating the "two-box" theory of education, but they now began to question their premises. Was there any logical reason, many asked, that the same special services could not be provided in a variety of places? For example, what if deaf pupils could be given the specialized instruction they needed within regular classrooms? What if careful diagnostic procedures could be coordinated through teaming arrangements within the regular school setting so that children who were not progressing satisfactorily in academic areas or were behavioral problems would not need to be referred to special class placements? The questions have been answered affirmatively; precisely these kinds of developments are taking place now. We are learning to provide specialized instruction outside of specialized places.

Unifying the Educational System

The changes that are taking place currently in the provision of special education services can be schematized by the Instructional Cascade in Figure 2. In this schema, the regular classroom is the basic scene of education and much of the diagnostic and specialized instructional procedures come down to it. We know that most specialized instruction can be provided in a variety of places; in fact, we have learned that it tends to be disadvantageous to confine children to special places or very limited environments for long periods of time. In the Instructional Cascade, the emphasis is upon bringing specialized instruction to the environments that least restrict the development of the children who need special services.

The Instructional Cascade entails several broad policies:

1. It proposes a decentralization policy to develop the capacity of schools to conduct specialized forms of education in many settings rather than in a few.

2. It proposes a "give-away" policy for specialists, that is, a readiness to share their knowledges and skills by teaching aspects of their special-

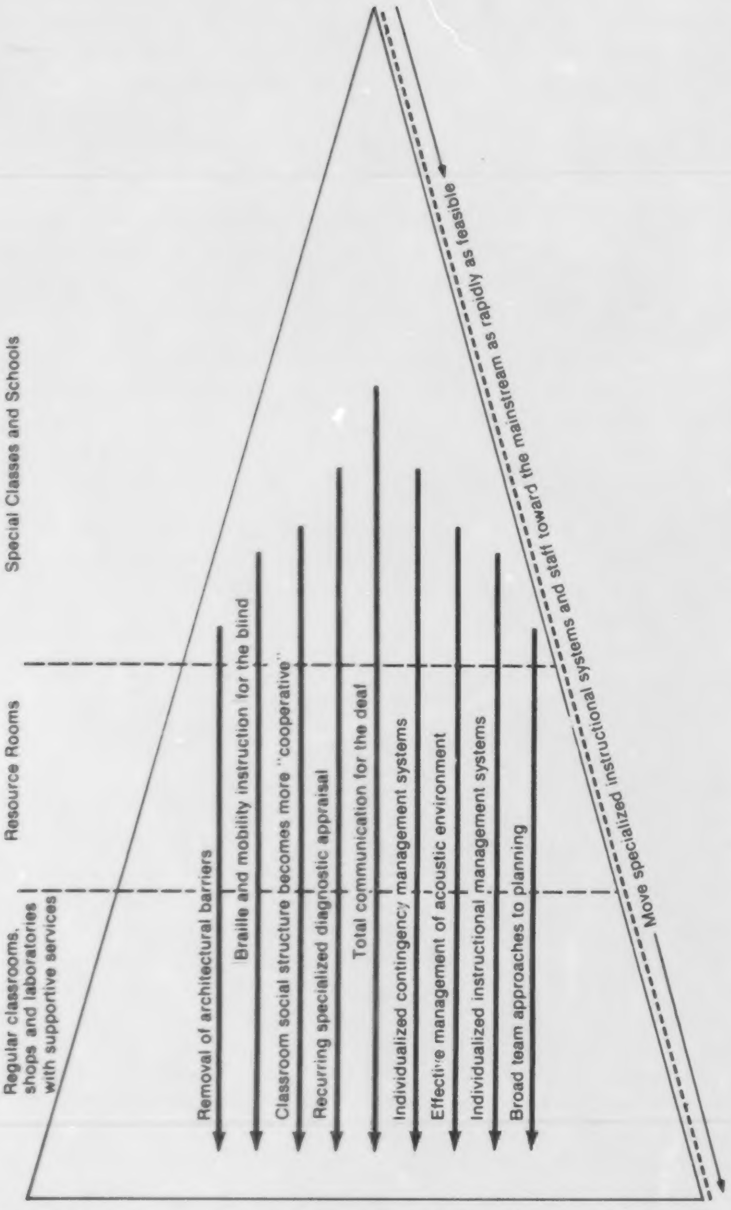
Special Classes and Schools
Resource Rooms
Regular classrooms, shops and laboratories with supportive services
Removal of architectural barriers
Braille and mobility instruction for the blind
Classroom social structure becomes more "cooperative"
Recurring specialized diagnostic appraisal
Total communication for the deaf
Individualized contingency management systems
Effective management of acoustic environment
Individualized instructional management systems
Broad team approaches to planning
Move specialized instructional systems and staff toward the mainstream as rapidly as feasible

Fig. 2. The changing cascade: Fewer specialized places, more diverse "regular" places.

ties to regular teachers and others, including noncredentialed persons, sometimes.

3. It proposes the assumption of the responsibilities for diagnosis, planning, and instruction in a single setting — the regular school — as opposed to dividing these responsibilities between special centers for diagnosis and for instruction.

4. It proposes that the diagnosis and classification of students be made in terms that are directly relevant to instruction rather than in such abstract categories as "retarded" or "emotionally disturbed."

Essentially, the Instructional Cascade is a graphic definition of the concept of mainstreaming or placement according to the principle of the least restrictive environment. A great deal of confusion surrounds the meaning of "mainstreaming." Because the term has been used far too loosely in the past, too many educators seem to try to regard it as a prescription rather than a concept; thus, there have been too many attempts to focus on the surface aspects of places — regular classes, resource rooms, and special classes — and placement decisions — how to get students to and from the places.

The concept of mainstreaming does not mean the tossing about of children from one educational placement to another. An early morning radio wit said, recently, that teaching a regular class of children is like trying to hold 30 corks under water all at once with only two hands. The principle of least restrictive environment or mainstreaming easily could be interpreted as pouring another 4 or 5 corks into that bobbing mass, all to be controlled by the two hands of one regular education teacher.

The concept of mainstreaming, however, as pictured in Figure 2, is based on the idea of one educational system in which all children are provided with the kinds of services they need in the settings that facilitate learning best. Instead of focusing on the idea of placing students in one setting or another, the focus should be on facilitating the flow of instructional services (and the helping hands of the professionals who provide these services) down the cascade to create regular school environments that have more range and greater accommodative capacity for differences. The concept of mainstreaming does not mean that regular classroom teachers must function like special education teachers but, rather, that the regular classroom is another setting in which specialized services are available.

The skills of the special educator, school psychologist, school social worker, and other specialists generally need not be exercised only in private or special settings. Indeed, when these specialists isolate themselves and the children needing their services, they more often succeed in producing highly specialized environments that are also highly limiting. The principle of placing children according to the least restrictive environment offers educators of all kinds the opportunity to work together in teams to give all children with learning and behavioral handicaps access to the educational opportunities that are theirs by judicial and legislative right.

IMPLICATIONS FOR TEACHER-EDUCATION PROGRAMS

Translating the principles of Public law 94-142 into school practices requires the acquisition of many new insights and skills by educational personnel in the schools. Indeed, the law recognizes this need with its provisions on personnel development. Before discussing how teacher-training programs are being changed, it is necessary first to look at the new kinds of skills that will be needed by pre-service teachers. The following brief discussion is focused on the field-related experiences and skills that seem to be essential for teachers who are being prepared now for regular class instruction. These aspects of teacher preparation require the close coordination of teacher-education programs and school practices.

1. *Direct experience with exceptional students.* The most obvious implication of the concept of mainstreaming is that all teacher candidates must have direct experience with a wide variety of students, including those with handicaps, while they are in training. Even before college and university students decide to enter teacher-preparation programs, they should have opportunities to learn about the new school practices and to acquire some experiences with exceptional students. For example, they can be given the opportunity to "shadow" students with specific handicaps in the schools for a day or two and then, with the help of an education faculty member, to assess their attitudes toward individual differences. Teacher-preparation programs should provide for their students the opportunity to move through an entire sequence of clinical experiences with children who have highly diverse characteristics. In short, teacher candidates must be able to accept the idea of working with handicapped children before they move into school classrooms.

2. *Consultation.* Because the maintenance of handicapped children in regular classrooms will require the teamwork of regular and special education teachers and, often, parents, skills in consultation are essential for all educational personnel. The vast literature on and academic disciplines in consultation are resources for including the skills in revised teacher-preparation programs.

The new principles of schooling increasingly will require significant adult-adult-child relationships. Instead of the relatively simple dyadic teacher-child relation, greater importance will be given to the triad of consultant-client-target. In this relation, the consultant may be a special education teacher, resource teacher, school psychologist, speech-language specialist, other specialist, or principal; the client is the regular education teacher; and the target, a pupil with a special need. The diagram in Figure 3 illustrates the indirect relation between the consultant and the target; only the client interacts directly with both. Although special teachers may work directly with the pupil on some tasks (e.g., teaching braille reading, auditory training, or intensive reading instruction), in the consultative triad the consultant works directly only with the teacher. In every instance, consultation is a temporary relation undertaken voluntarily by the consultant and client to improve instruction for one or more pupils.

Table 1 contains a few guidelines for the use of teachers preparing for work in classrooms that may contain one or more handicapped children. These suggestions, which are derived from broad theoretical work and experience in consultation, are particularly appropriate for classroom teachers.

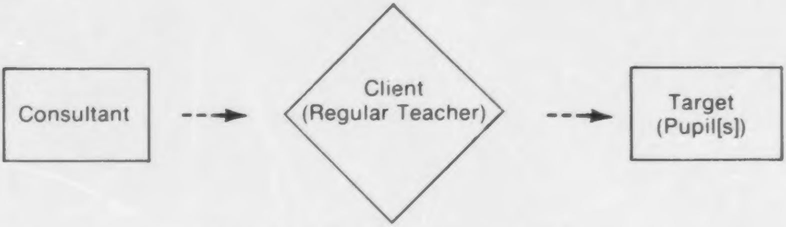

Fig. 3. A triadic consultative relation.

Table 1
Consultation Guidelines for Teachers

- Remember that you "own" the problem; you are in charge of the education of the pupils or the classroom procedures that are under consideration.
- Be sure that there is early agreement with the consultant on the nature of the "problems" and on how decisions about plans for solution will be made. Draw up a contract orally or in writing early in the relationship on goals, methods, and responsibilities.
- Be sure that it is clear that you (the teacher) are the client — that all communication flows to you. The consultant is there to help you structure your work, not somebody else's. This relationship does not preclude some direct assessment of children and observations in the classroom by the consultant if agreed upon as part of the contract.
- Avoid status problems. Consultants and clients are co-equals.
- Avoid entering personal subjective materials (letting attention shift to your personal needs and problems or those of the consultant); instead, keep the content of the relationship centered on the child and the instructional situation.
- Seek alternative suggestions from the consultant rather than a single or set plan.
- Try to use each occasion of consultation as a learning experience in increasing effective communication and listening, building trust among professionals, and maximizing instructional effectiveness.
- Evaluate each consultation experience objectively and share your conclusions with the consultant.

3. *Clinical skills.* Teachers in training must be prepared to conduct clinical interviews with parents. As classroom teachers, they will need insight into and some techniques for dealing with parents' deep emotions in planning for children who are unable to progress as fast or far as their peers. Currently, many teachers and parents are apprehensive about such conferences and about the cooperative planning in which they must participate in writing IEPs. Clinical skills, however, will help teachers to overcome these apprehensions.

4. *Interaction among training programs.* Teachers who will work cooperatively in the schools with specialists of various kinds must understand in advance what services a specialist is capable of providing. Thus, educational preparation programs should not be conducted in isolation. For example, it has been suggested that teacher trainees will profit from sharing clinical experiences with students preparing to be speech-language pathologists, school psychologists, school counselors, school social workers, or special education consultants. In the main, colleges and universities have failed badly in bringing related programs together at early stages; as a result, specialists often meet each other and classroom teachers in the schools as total strangers.

5. *Better preparation for systematic management of instruction.* Increasingly, teachers must expect to manage complex systems of instruction that will include more precise and frequent assessments, greater varieties of materials and methods, teamwork with aides and specialists, consultation, and other elements that are required to serve a range of students in a diverse regular school environment. Fortunately, there is a growing literature and practice (e.g., IGE system) which can be drawn upon for this aspect of teacher preparation.

In addition to familiarity with broad systems for individualizing instruction, it is important that teachers be well prepared in procedures for general classroom management (e.g., Borg, n. d.; Johnson & Johnson, 1975; and Kounin, 1970). Included here are skills in managing transitions, question asking, social climate, behavior disturbances, and like matters.

6. *Diagnostic-Prescriptive Approaches.* A truly notable feature of the mainstreaming concept and the provisions of Public Law 94-142 is the emphasis on the individual student in "appropriateness" of educational program and IEP. Thus, teachers will need a greater understanding of and skills in the details of individualized assessment and instructional planning.

7. *Due process.* Section 1 of the Fourteenth Amendment to the Constitution forbids the states to abridge the privileges and immunities of U.S. citizens, to deprive any person of life, liberty or property without due process of law, and to deny any person the equal protection of the laws. This section has been invoked to guarantee to students and/or their parents or guardians the right to challenge decisions of school, state, and

local officials about how a child has been identified, evaluated, or placed in a special education program. Because the proceedings may take, sometimes, a formal and legalistic format, teachers should understand the safeguards provided by Public Law 94-142 and the significance of participating in such proceedings. The literature on the aspects of due process are reasonably clear and should be made a part of the preparation programs for all educational personnel.

The preceding brief and partial listing of new skills that are needed by teachers indicates that the fundamentals of teacher preparation are at issue. Increasingly, educators and parents are appreciating the fact that the principles embodied in Public Law 94-142 are more than temporary enthusiasms or innovations to be "domesticated" within a year or two. The idea of educating each handicapped child in the environment and according to the program that are most appropriate for him/her is stirring up long-standing issues in and promises for the education of all children and, perhaps more important, a greater respect for individual differences. These issues are reflected in the changes that have been initiated by many of the Deans' Grants Projects.

The Deans' Grants Projects

In the 1977-78 school year, the average dollar amount involved in the Deans' Grants Projects is quite small—between $40 and $45 thousand per project. The small grants may be advantageous. Not enough money is provided to support a special staff; as a result, the funds and the project tend to be held closely in each dean's office for administration and leadership. The funds tend to be used mainly for developmental purposes involving regular teacher-education faculty and the basic preparation programs of the college or school of education. In sum, the grants seem to be stirring up teacher-preparation programs internally and fundamentally, partly because there is not enough money to give the project to an adjunctive group.

PROJECT ACTIVITIES

In general, five categories of activities can be identified within the schools of education that have been awarded Deans' Grants.

1. *Faculty orientation and staff development.* In almost all cases, the projects have included activities to create a wide awareness of and commitments among the education faculties to the emerging modes of service for handicapped students.

2. *Curriculum revisions.* All the projects are concerned with the development of revised curricula for the preparation of school personnel. The revisions vary: (a) the addition of courses relating to the least restrictive environment for handicapped pupils; (b) team teaching by special educa-

tion and other teacher educators of selected topics in existing courses; (c) fundamental revisions of existing courses and programs to give greatly increased attention to topics of individual differences; and (d) program modifications to develop the capacity of teachers to accommodate handicapped students. The trend appears to be toward the latter more fundamental alteration of programs.

3. *Field-related activities.* In nearly all projects, efforts have been directed to the careful selection and development of clinical experiences, including school-based practica, to give trainees appropriate experiences in the new approaches to educating handicapped pupils. In many communities, such practica have not been a serious problem because elementary and secondary schools have been moving rapidly in the direction of the new mandates and, thus, are fully receptive to the restructured teacher-training programs. In some districts, however, the colleges have had awkward moments in negotiating new arrangements with selected local schools and agencies.

4. *Administrative restructuring.* Some colleges have restructured their administrative and leadership patterns to permit total teacher-preparation programs. For example, in a few colleges, special education faculties have been combined with other units to forge broad new patterns of collaborative teacher preparation; in other institutions, partial amalgamations have been formed (e.g., combining vocational education and special education units) to develop new programs that are suitable for special-needs students.

5. *Products.* In some projects, attention has gone to the development of training materials (e.g., films, sets of readings, filmstrips, and audio cassette units) for use in new systems of teacher preparation. These materials generally are available for countrywide dissemination from the colleges and universities housing Deans' Grants Projects.[3]

Many projects have reported a surge of interest in and commitment to the purposes of the project begining in the Fall of 1977. It was then that the first year of full implementation of Public Law 94-142 started and brought about a great deal of searching and striving by the elementary and secondary schools of the nation. Millions of IEPs were written in the Fall months of 1977. (It is rumored that in one western city, automobile bumper stickers appeared reading, "Have you done your IEPs?"). Apparently, the reality of this massive activity stimulated the interest of teacher-training faculty members who have strong ties to the public school systems.

In many projects, progress in program revision has tended to start in elementary teacher-preparation programs and then to spread to secondary education, school administration, school psychology, vocational education, school counseling, and other fields. There is also an obvious trend for projects to make increasingly systematic efforts to plan the change processes that are seen as part of the purpose of the Deans' Grants Projects.

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[3] To obtain the bibliography of training resources, see the Publications List at the end of this volume.

Definite assistance in overcoming faculty resistance to programmatic changes is coming from national organizations which have chosen to give attention to the provisions of Public Law 94-142. For example, the very substantial work of the American Association for Physical Education, Health, and Recreation (under the direction of Julius Stein and others) has helped to create a strong commitment by physical education instructors to new arrangements for handicapped children. The activities of the special committee on the handicapped in the *Opportunities in Science Program,* American Association for the Advancement of Science, and the related work of the National Science Teachers Association have penetrated many science-education faculties in colleges of education. Similar activities are underway in vocational and career education and much more can be expected. The flow of these activities from specialized national organizations to the campuses of teacher-preparing institutions may have special importance because they create new opportunities for leadership and valued recognition among subject-matter peers.

In a more general vein, the American Association of Colleges for Teacher Education (AACTE) has given an important place on convention agendas to teacher preparation in the mainstreaming concept. For example, the AACTE conventions in February 1978 included a bloc of 12 program hours on mainstream teacher education. The Land Grant Deans Association has given increasing attention to the topic, also.

Although there have been difficulties in the Deans' Grants Projects because they require fundamental changes in the college environment, progress is very good and new leaders are appearing.

THE DEAN AS DIRECTOR OF CHANGE[4]

An important principle emerging from the papers in this volume is that the people whose roles will be changed by a project must participate in the decisions that will affect them. This principle, however, does not obviate the need for leadership in the change process. When this leadership is supplied by the dean of a school of education, he/she is viewed as providing institutional and administrative support for the change. In addition, the dean's participation in the project gives it credibility and elevates the importance of the activities. Hence, greater support can be elicited from the faculty.

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[4] Some of the statements in this and the following subsections are drawn from the results of a survey conducted by the National Support Systems Project of the attitudes of Deans' Grants project personnel toward their activities. Since the survey results are not yet analyzed, the conclusions stated here must be considered the author's.

When a project is housed in the dean's office, it appears to be viewed as "belonging" to the whole school of education rather than to one person or department. Instead of creating rivalry among departments, as projects identified solely with one department tend to do, a project headed by a dean seems to facilitate cooperation among all departments. Furthermore, participation in the project by individual faculty members appears to provide greater opportunities for visibility and political advantage and, perhaps more important, for the emergence of new leadership.

The conclusion seems inescapable, consequently, that any project for change involving an entire school of education and crossing departmental lines should be headed by the dean to insure acceptance by and participation of all faculty members in the school.

ATTITUDES TOWARD THE CONCEPT OF MAINSTREAMING

Over the past few years, we have witnessed many attacks on the concept of mainstreaming by both regular and special educators. The first have seen in mainstreaming the disruption of regular education classrooms by unmanageable children, thus short-changing nonhandicapped students, and the imposition of greater burdens on regular education teachers. Some special educators have seen mainstreaming as a threat to their continued existence, that is, as eliminating special services from the schools, and as depriving children with special needs of the security of special classes.

However, it seems apparent from the majority of papers in this volume and from the raw data elicited in the survey of project personnel, that most school of education faculty members are ready to advocate the concept of mainstreaming if they can reconcile it with their individual views of their professional roles. From the papers in this book, it is obvious that merely reading about mainstreaming is an insufficient preparation for this reconciliation; faculty members need the safe opportunity to air their feelings about mainstreaming and the reassurance of personal interactions to move toward the adoption of more positive attitudes. Indeed, it seems that two kinds of personal interactions are essential: group and one-to-one. Furthermore, the interactions should be more than "one-shot" deals; they should be continued over as long a period of time as is necessary for the faculty members to feel secure in the adoption and advocacy of mainstreaming.

We can also infer from the descriptions of project activities that changing attitudes should involve some rewards for faculty members. These rewards should include, of course, opportunities for professional growth and, equally important, for individual development.

IMPACT OF PROJECT ACTIVITIES ON COLLEGE AND FACULTY

In the Deans' Grants Projects, as in any change program, the first goal was to make faculty members aware of the need for change. From the preceding papers, it is possible to infer that some projects have been more successful than others in initiating activities that lead to the condition of awareness. Awareness of the need for change and willingness to change are different states (see, in Section Two, the paper by Hall). The reasons why the first does not lead automatically to the second are suggested in the next section on problems.

One of the evidences of awareness seems to be the extent to which faculty members participate in staff-development activities. However, it is also apparent that participation in staff development depends in part on the attractiveness of those activities; for example, for some faculty members attending off-campus, paid, week-end seminars or workshops is a more attractive activity than end-of-the day meetings, and for some faculty members small-group activities are more desirable than large meetings. It is apparent from the papers that some projects have given considerable thought to providing a variety of staff-development activities that will appeal to the greatest number of faculty members possible.

Evidence of willingness to change can be seen in various activities: For example, faculty members interact across departmental lines by opening channels of communication; initiating joint courses; including new content in old courses; sharing knowledge; undertaking team teaching; sharing practicum sites; and participating jointly in research and writing activities. As the section on problems suggests, cross-departmental activities are not easily entered into by all faculty members. Thus, in some schools of education, the strongest evidence of the willingness to change is seen in increasing cooperation among departments of regular education, special education, foundations of education, and others.

PROBLEMS

The greatest problems that appear to face change programs are institutional inertia toward change, limitations on needed resources, and perceptions of professional autonomy. In some colleges of education, the traditional administrative structure seems to encourage rivalry for resources and recognition among departments rather than cooperation across departments. The limitations on time, funding for change activities, and rewards for participation in change activities are frequently cited in the project reports as impediments to more rapid change.

Among some college of education faculty members, the content of courses taught appears to be perceived as the sole concern of the persons teaching the course, that is, as "belonging" to the faculty members by right of academic freedom. The issue appears to be a specious one, given that most faculty members pride themselves on constantly up-dating course content, including new significant materials, and making the content more meaningful for students. If teacher-preparation courses are envisaged as in a supply-demand relation with the public schools, then the programs must change to meet the changing demands of the schools. The required implementation of the provisions of Public law 94-142 by the schools changes the kinds of preparation pre-service teachers must have to meet the new needs of the schools.

Perhaps the greatest problem facing the colleges of education is the rapidity with which the change to a "mainstream" philosophy must be effected. There is no gainsaying that the new philosophy of educating children with handicaps requires massive changes in the total structure of schools of education. Education has always been in a somewhat anomalous position on college and university campuses. One the one hand, it is an academic discipline in which research and investigation are highly prized but, on the other, it is also a service enterprise in a symbiotic relation with public schools. Fundamentally, there may be a fear among many school of education faculty members that changing to maintain the relation with the public schools will jeopardize their standing as academicians. This kind of fear can be resolved more easily when the changes can proceed little by little over a long period of time; when the time is limited, however, the fear must be dealt with through planned staff development activities.

Conclusions

There is a clear and rising recognition among many participants in the Deans' Grants Projects that schools of education are faced with fundamental changes. This recognition reflects the changes that are underway in the public schools. It is becoming apparent that the new modes of providing services for handicapped students in school systems really mean changes for all students in respect to recognizing individual differences, developing alternative curricula, changing assessment and decision systems, negotiating individual educational plans with parents, employing school specialists in support roles, reorganizing child-study systems, reinvigorating inservice training programs, adapting school architecture, upgrading the leadership roles of school principals, and reorganizing the uses of special education funds. The changes in teacher preparation necessarily will correspond with the changes occurring in the schools.

On college and university campuses, nevertheless, strong new interest in the public schools are emanating from many disciplines: the law schools, the public administration faculties, the psychology departments, the schools of social work, the schools of home economics, and even such apparently unrelated fields as anthropology. The reshaping of the schools and teacher-preparation programs to support the provision for including persons with special needs in the mainstream is part of a vast new community movement that is worldwide in scope. Thus, the movement to which the Deans' Grants Projects are linked is large, important, and growing, both on the campuses and in the community at large.

Within the colleges of education there is much new work to be done. Contributions are emanating from many quarters: historians, philosophers, measurement specialists, counselors, curriculum specialists, child developmentalists, and many others, in addition to the faculties in special education and general teacher preparation.

There is a growing sense that the breadth and strength of forces associated with the mainstreaming movement, together with the fundamental nature of the changes involved, could make this innovation a very important, long-lasting one. It is broadly recognized that mainstreaming presents a basically moral issue for all of society, and that the direction of the movement is correct. So, even after all the difficulties are examined and ventilated, people are tending to stay on task. The issues and the problems are difficult and they are coming to the top of the agenda at many places: school board meetings, college senates, and negotiations between teachers' associations/unions and school boards. Educators everywhere seem to be struggling with mainstream issues, and the issues are very difficult. But people are finding the positive steps that can be taken to implement the new policies. The Dean's Grants Projects, small as they may be, occupy a key position in this busy and hopeful scene.

In 1949, Clyde Kluckhohn, an eminent anthropologist of the period, noted that in our society, "we have come to believe in education as an instrument for creating something new, not merely for perpetuating the traditional" (Kluckhohn, 1949, p. 169). It is to the credit of educators that education holds this position in our society.

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Deno, E. (Ed.). *Instructional alternatives for exceptional children.* Reston, Va.: Council for Exceptional Children, 1973.

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Back of the Book

Appendix A

An Annotated Bibliography on Change in Educational Institutions

Compiled by

Richard I. Arends & Jane H. Arends

University of Oregon

Abbott, M. G. Hierarchical impediments to innovation in educational organizations. In M. G. Abbott & J. T. Lowell (Eds.), *Change perspectives in educational administration*. Auburn, Ala.: Auburn University, 1965. Also, in D. Carver & T. J. Sergiovanni (Eds.), *Organizations and human behavior: Focus on schools*. New York: McGraw Hill, 1969, 42-50.

Hierarchical bureaucratic structures in educational institutions make it difficult to decide when new programs are needed and restrain their implementation. Authority in hierarchical bureaucratic structures is often based on the charisma of participants, with emphasis on the "rights" of administrators and the "obligations" of others. Structures that elevate the status of administrators must be "flattened" if innovative programs are expected to flourish.

Arends, R. I., & Arends, J. H. *Systems change strategies for the helping professional*. New York: Human Sciences, 1977.

The first chapter describes why schools need to change and suggests the part that can be played by personnel who provide guidance and pupils personnel services. The second chapter explains schools as social systems and describes some group processes through which work is accomplished in schools. Examples and tools are given in the third chapter. The fourth chapter presents guidelines for facilitating change. Trends for the future are discussed in the final chapter.

Arends, R. I., Phelps (Arends) J. H., & Schmuck, R. A. *Organization development: Building human systems in schools*. Eugene, Ore.: Center for Educational Policy and Management, 1973.

Introduces some basic concepts and methods of organizational development to school people who have no previous acquaintance with the topic. Explains that OD interventions aim to enable the organization to monitor and respond to its environments and to find, maintain, and use the resources needed to respond. Communication, problem solving, decision making, meetings, and the potential for collaboration are treated as variable processes that can be improved through consultation.

Argyris, C. & Schon. D. A. *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass, 1974. (Reviewed by P. J. Runkel in *Journal of Higher Education*, Jan.-Feb. 1976.)

Faculties of professional schools today live in frustration between theory and practice, school and society, professional and client. Discontent is only partly attributable to rapid change in technology and our attempts to keep up. An important cause of our discontent is related to our failure to recognize discrepancies between theories we espouse and theories we display in our actions. Institutionalized isolation that frightens the academician from risking commitment in the field and would-be teachers from exposing their theoretical thoughts in seminars also prevent us from reforming professional education.

Benne, K. D., & Birnbaum, M. Principles of changing. In W. G. Bennis, K. D. Benne, & R. Chin (Eds.), *The planning of change* (2nd ed.). N.Y.: Holt, Rinehart, & Winston, 1969, 328-334.

Principles of change reported in this paper are as follows: (a) relevant aspects of a subsystem's environment must be changed along with change inside the subsystem; (b) in order to change behavior at one level of the hierarchy, complementary changes must occur at adjacent levels; (c) change efforts should begin at levels and in subsystems where some stress and strain already exist; (d) but change should not begin at points of greatest stress; (e) thorough change should start with the policy-making bodies; (f) but the more levels of the hierarchy that participate in planning, the more effective the change will be; and (g) consideration of the institution's informal organization is just as important as consideration of the formal organization.

Berlew, D. E. Leadership and organizational excitement. In D. A. Kolb, I. M. Rubin, & J. M. McIntyre (Eds.). *Organizational psychology: A book of readings* (2nd ed.). Englewood Cliffs, N.J.: Prentice Hall, 1974, 265-277.

Leaders may behave in custodial, managerial, or charismatic modes. Custodial and managerial modes do not explain why some organizations are exciting and others are not. The author advocates making others feel stronger through high expectations, rewards instead of punishment, encouraging collaboration, helping only when asked, and creating success experiences.

Blanchard, K. H., & Hersey, P. The importance of communication patterns in implementing change strategies. *Journal of Research and Development in Education*, 1973, 6(4), 66-75.

Describes and contrasts participative and coercive change styles without recommending one over the other unless attention is paid to a combination of situational factors, such as the educational leader's style of influence and the communication structure of the institution. The major thesis is that the participative change cycle is slow but tends to develop involvement and commitment while the coercive change cycle is fast but can create resentment and hostility that can make subsequent change more difficult to inspire.

de Charms, R. Origins, pawns, and educational practice. In G. S. Lessor (Ed.), *Psychology and the educational process*. Glenview, Ill.: Scott, Foresman, 1969.

Competent people see themselves as the origins of their own actions and not as pawns pushed forward by others. The author suggests ways

to increase the degree to which students see themselves as origins. The suggestions could be adapted by administrators who would urge faculty members to take greater ownership in organizational goals and programs.

Fullan, M. Overview of the innovative process and the user. *Interchange*, 1972, **3**(2), 1-46.

The author critically examines existing models and approaches to educational change. He concludes that innovations developed external to schools lead to no significant change. Argues that we need to restructure the role of the user and revise the direction of influence in the process of change.

Goodlad, J. I. *The dynamics of educational change: Toward responsive schools*. New York: McGraw Hill, 1975.

This book reports research and contributes much to theory and technology for change in education. The author advocates viewing schools as natural rather than mechanical systems to taking the whole school into account when efforts are made to change one part of the school.

Gooler, D. D., & Ely, D. P. The impact of organization on curriculum change. *Educational Technology*, 1972, **12**(10), 39-42.

Describes preliminary findings on the process of curiculum change in a department of education within a large university. Particular emphasis is placed on organizational features that were relevant to the change effort. A rare example of documented change in higher education.

Gross, N., Giacquinta, J. B., & Bernstein, M. *Implementing organizational innovations*. New York: Basic Books, 1971.

A well-told story of research on an attempt to change a school. The analysis of factors and chains of effects that led to both success and failure are superb. The research design would be well worth replicating to produce knowledge about change in higher education.

Hedberg, L. T., Nystrom, P. C., & Starbuck W. H. Camping on seesaws: Prescriptions for a self-designing organization. *Administrative Science Quarterly*, 1976, **21**(1), 41-65.

Rigid, permanent, and fortress-like organizational structures are less well matched to their environments (the needs of clients, funding pictures) than structures that resemble tents. The tethers that can link a structure to its environments and that can help "convert a crisis into a lethal tragedy and occasionally survive" include beliefs that:

"Cooperation requires minimal consensus,
Satisfaction rests upon minimal contentment,
Wealth arises from minimal affluence,
Goals merit minimal faith,
Improvement depends on minimal consistency, and
Wisdom demands minimal rationality."

House, E. R. *The politics of educational innovation*. Berkeley, Cal.: McCutchan, 1974.

The messages in this book are grounded in empirical research and concern the processes and consequences of innovating. Particular emphasis *is placed on political and social relationships among people in organizations and how innovation grows out of face-to-face interaction.*

Improving Teaching Competencies Program products. Portland, Ore.: Northwest Regional Educational Laboratory.

Jung, C. C., et al. *Interpersonal Communications.* Tuxedo, N.Y.: Xicom, 1973.

Emory, R. E., & Pino, R. F. *Interpersonal influence.* Tuxedo, N.Y.: Xicom, 1975.

Pino, R. F., & Emory, R. E. *Preparing educational training consultants I, II, III.* Portland, Ore.: Northwest Regional Educational Laboratory, 1976.

Jung, C. C., Pino, R. F., & Emory, R. E. *Research utilizing problem solving.* Portland, Ore.: Commerical Educational Distributing Service, 1972.

Lohman, J., & Wilson, G. *Social conflict and negotiative problem solving.* Portland, Ore.: Northwest Regional Educational Laboratory, 1977.

A series of instructional systems for educators who wish to understand or more effectively manage the group and organizational processes in schools. Each includes materials and experiential-learning activities to be used in workshop settings. Experience in workshops for several products qualifies one as a trainer.

Jung, C. C. *Organization development in schools.* Portland, Ore.: Northwest Regional Educational Laboratory, 1977.

A theory to guide organization development in schools and many strategies for OD consultants.

Kazlow, C. *Resistance to innovations in complex organizations: A test of two models of resistance in a higher education setting.* Unpublished doctoral dissertation, New York University, 1975.

Findings from a major university that high-status professors reported high resistance to change whereas lower status respondents were more receptive.

Lawrence, P. R., & Lorsch, J. W. *Developing organizations: Diagnosis and action.* Reading, Mass.: Addison-Wesley, 1969.

Change in organizations requires attention to the "fit" at three interfaces: (a) organization and environment, (b) group to group, and (c) individual to organization. Each interface presents a unique set of problems, and improvements at any interface must be reciprocated with changes in the others if the change is to be either significant or enduring.

Lighthall, F. F. Multiple realities and organizational nonsolutions. *School Review,* 1973, **81**(2), 255-293.

A common view of leadership is that a legitimate leader is supposed to manipulate subordinates to do things in a way and at a time that the leader believes they would want if only they knew what the leader knows. But this author says people in power are fantasizing if they think their world is the world. In the absence of authentic and relevant communication, those holding power become more sealed off from the multiple realities that exist in groups.

Lindquist, J. Political linkage: The academic-innovation process. *Journal of Higher Education*, 1974, **45**, 323-343.

Argues that obstacles to innovation are great in higher education. Suggests the need for strengthening communication linkages among individuals on campus and developing collaborative problem-solving practices.

Margulies, N. Organizational development in a university setting: Some problems of initiating change. *Educational Technology*, 1972, **12**(10), 48-51.

The values, process, and technology of organization development are described in this article as they were applied to a college of a large university. The role of department chairpeople in initiating the OD intervention is described.

Meyer, J. W., & Rowan, B. Notes on the structure of educational organizations (rev.). Paper presented at annual meeting of American Sociological Association, 1975. (Stanford Center for R&D in Teaching.)

Describes how and why educational organizations can be observed to lack coordination and control over their central instructional activities. Suggests that tight surveillance of procedures necessary to certifying graduates (e.g., counting credit hours) consumes organizational energy that could otherwise be spent in planning and doing formative evaluation of instruction.

Miles, M. B. Planned change and organizational health: Figure and ground. In R. O. Carlson, A. Gallagher, Jr., M. B. Miles, R. J. Pellegrin, & E. M. Rogers (Eds.), *Change processes in the public schools*. Eugene, Ore.: Center for Educational Policy and Managment, 1965, 11-34.

Preoccupation with an innovation can lead to neglecting the readiness of the organization to absorb and nourish the new thing. A "healthy" organization has, among other features, (a) clear and achievable goals, (b) distortion-free communication, and (c) equitable distribution of influence.

Miles, M. B. Thinking about how to do it: Alternative models of planning and implementation of new schools. Paper presented at annual meeting of AERA, 1976. (New York: Center for Policy Research, mimeo.)

Educational oganizations plan and implement new programs in different ways. The underlying dimensions of differences among their planning and implementation models seem to be (a) the representation of experts, operators, gatekeepers (administrators), and clients in the planning group; (b) the degree of orientation to the future; (c) design specificity; (d) adaptiveness and reflexivity in the plan; and (e) linkages between planning and implementation. The pains and payoffs of six "classic" planning and implementation models (i.e., "muddling through," natural development, engineering-architecture, rationalized program development, simulation, and adaptive planning) are described.

Owens, R. G., & Steinhoff, C. R. *Administering change in schools*. Englewood Cliffs, N.J.: Prentice-Hall, 1976.

This book describes how to change practices and programs in schools. The authors emphasize many key elements in change strategies, and pay

particular attention to human interactions and resources. They outline principles based on recognizing schools as human systems.

Paul, D. A. Change processes at the elementary, secondary, and post-secondary levels of education. Washington, D. C.: National Institute of Education, 1977. (mimeo)

The author summarizes the major models of change and presents a series of generalizations about educational change based on recent empirical studies. One of the few writers who have reviewed the literature in higher education.

Pincus, J. Incentives for innovation in the public schools. *Review of Educational Research*, 1974, **44**(1), 113-144.

One section of this article discusses incentives to adopt innovation and another describes common problems with implementation. The major thesis of the article is that bureaucratic structures and incentives shape any transition from mere adoption of an innovation to active implementation. Although the research cited was done in public elementary and secondary schools, Pincus's concept of the market structure of the schooling industry would seem to apply well to institutions of higher education, particularly those facing declining enrollments or declining job markets for their graduates.

Rand Corporation. *Federal programs supporting educational change:*
Vol. I. A model of educational change (by Berman & McLaughlin, 1974)
Vol. II. Factors affecting change agent projects (by Berman & Pauly, 1975)
Vol. III. The process of change (by Greenwood, Mann, & McLaughlin, 1975)
Vol. IV. The findings in review (by Berman & McLaughlin, 1975)

"Our data show that a receptive institutional setting is a necessary but not sufficient condition for effective implementation. An implementation strategy that promotes mutual adaptation is critical. The main factors affecting innovations were the institutional setting, particularly organizational climate and motivations of participants; the implementation strategy employed by local innovators to install the project treatment; and the scope of change implied by the project relative to its setting. Neither the technology nor the project resources nor the different federal management strategies influenced outcomes in major ways. Thus, project outcomes did not depend primarily on inputs from outside but on internal factors and local decisions." (Vol. IV, p. x)

Runkel, P. J. *Bibliography on organizational change in schools.* Eugene, Ore.: Center for Educational Policy and Management, 1974.

Includes hundreds of extensively annotated entries for all who would wish to understand schools as organizations and who would wish to enable them to change more surely, with less wheel-spinning and fewer abortive attempts.

Runkel, P. J. Conditions for success and failure of organizational development in schools. *CEDR Quarterly*, 1975, **8**(4), 6-10.

This paper discusses differences among schools in their readiness for organizational development intervention. Two variables that have been found to be important dimensions of readiness are (a) readiness to colla-

borate, and (b) ready access to novel — even if disconcerting — information. The paper describes how educators will engage in systematic effort even if it does not lead to "success," as long as they feel that they have learned something and are likely to spend less effort than before on working toward desirable outcomes. The author concludes by suggesting that the most "innovative" schools are not necessarily the most effective because shared agreements to abandon innovations that don't work can be a mark of an organization's capacity to change in the future.

Sarason, S. B. *The culture of the school and the problem of change.* Boston: Allyn & Bacon, 1971.

An excellent explication of the importance of treating the school as a complex social system if meaningful change is to occur.

Schmuck, R. A., & Miles, M. B. (Eds.). *Organization development in schools.* La Jolla, Cal.: University Associates, 1971.

An encompassing selection of ways in which the theory and technology of organization development are employed in schools. Describes the history of this change strategy and its effects in different settings.

Schmuck, R. A., Runkel, P. J., Arends, J. H., & Arends, R. I. *Second handbook of organization development in schools.* Palo Alto: Mayfield, 1977.

A comprehensive text on the theory and technology of organization development. Along with chapters on changing key organizational processes (e.g., communication, decision making, and conflict management), there are chapters on formative and summative evaluation as well as a chapter on institutionalizing the change capacity.

Schmuck, R. A., Arends, J. H., & Arends, R. I. Tailoring consultation in organization development for particular schools. *The School Psychology Digest,* 1974, **3**, 29-30.

Provides a step-by-step approach for making entry, diagnosing systems, and designing interventions for schools. Sixteen guidelines are provided.

Appendix B

Resources for Competency-Based Modules to Prepare Pre-service Teachers for Mainstreaming

Compiled by

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- Brophy, J. E., & Good, T. L. *Teacher-student relationships: Causes and consequences.* New York: Holt, Rinehart, & Winston, 1974.
- Birch, J. *Mainstreaming.* Washington, D. C.: U. S. Office of Education, 1974.
- Barnes, E. *Children learn together: The integration of handicapped children into schools.* Syracuse, N. Y.: Human Policy Press, 1974.
- California Association for Neurologically Handicapped Children. *Walk in another pair of shoes.* Los Angeles: Author, 1970.
- Canfield, J., & Wells, H. C. *100 ways to enhance self-concept in the classroom.* Englewood Cliffs, N. J.: Prentice-Hall, 1976.
- *Cipher in the snow.* Salt Lake City, Utah: Brigham Young University, 1973.
- Cochrane, P. V., & Marini, B. Mainstreaming exceptional children: The Counselor's role. *The School Counselor,* 1977.
- Cochrane, P. V., Marini, B. Mainstreaming exceptional children: A Handbook for Counselors. *Florida Education Research and Development Council Research Bulletin,* 1977, 11(3).
- Cochrane, P. V., & Westling, D. L. The principal and mainstreaming: Ten suggestions for success. *Educational Leadership,* 1977, 34(7), 506-510.
- Cruickshank, W. M., & Johnson, G. O. (Eds.). *Education of exceptional children and youth.* Englewood Cliffs, N. J.: Prentice-Hall, 1975.
- Deno, E. N. (Ed.). *Instructional alternatives for exceptional children.* Reston, Va.: The Council for Exceptional Children, 1972.
- Fairchild, T. N. (Ed.). *Mainstreaming exceptional children* (6 Vols.). Austin: Learning Concepts, 1976.
  - Fairchild, T. N., & Henson, F. O. *Mainstreaming exceptional children.*
  - Fairchild, T. N. *Managing the hyperactive child in the classroom.*
  - Parks, A. L., & Fairchild, T. N. *Mainstreaming the mentally retarded child.*
  - Henson, F. O. *Mainstreaming the gifted.*
  - Parks, A. L. *Behavior disorders: Helping children with behavioral problems.*
  - Henson, F. O. Fairchild, T. N. *Mainstreaming children with learning disabilities.*
- Gearheart, B., & Weishahn, M. *The handicapped child in the regular classroom.* St. Louis: C. V. Mosby, 1976.

Hammill, D. D., & Bartel, N. R. *Teaching children with learning and behavior problems.* Boston, Mass.: Allyn & Bacon, 1975.

Haring, N. G. *Behavior of exceptional children: An introduction to special education.* Columbus: Charles E. Merrill, 1974.

Healy, T., Sedlack, J. E., & Coarsey, M. *Special education administration: Competency listing and resource guide for building level administrators.* Tallahassee: Florida Department of Education, 1976.

Jones, R. L. (Ed.). *Mainstreaming and the minority child.* Reston, Va.: Council for Exceptional Children, 1976.

Kroth, R. L. *Communicating with parents of exceptional children.* Denver: Love, 1975.

Lowenbraun, S., & Affleck, J. Q. *Teaching mildly handicapped children in regular classes.* Columbus: Charles E. Merrill, 1976.

Lott, L. A., Hudak, B. J., & Scheetz, J. *Strategies and techniques for mainstreaming: A resource room handbook.* Monroe County Intermediate School District (1101 S. Raisenville Road, Monroe, Mich. 48161), 1975.

Lyon, J. C., Jr. *Learning to feel – feeling to learn.* Columbus: Charles E. Merrill, 1971.

Maryland State Department of Education. *Teaching children with special needs.* Owing Mills: Author, 1974.

Payne, J. S., Kauffman, J. M., Brown, G. B., & DeMott, R. M. *Exceptional children in focus.* Columbus: Charles E. Merrill, 1974.

Project PREM. *Try a learning problem on for size.* Austin: The University of Texas at Austin, 1976.

Raths, L. E., Harmin, M., & Simon, S. B. *Values and teaching.* Columbus: Charles E. Merrill, 1966.

Reynolds, M. C., & Davis, M. D. (Eds.). *Exceptional children in regular classrooms.* Minneapolis: Audio Visual Library Service, University of Minnesota, 1971.

Schwartz, L. L. *The exceptional child: A primer.* Belmont, Cal.: Wadsworth, 1975.

Smith, R. M., & Neesworth, J. T. *The exceptional child: A functional approach.* New York: McGraw-Hill, 1975.

Spearman, C. Methods, techniques and teacher-made material activities project as part of inservice education for regular classroom teachers working with mildly or moderately handicapped students. Lakewood, Col.: Jefferson Co. School District R-1 (809 Quail Street, Lakewood, Col. 80215).

Spinello, B. A day in the life of Bonnie Consolo. Pasadena, Cal.: Arthur Barr, 1975.

Smith, P. B., & Bentley, G. I. *Teacher training program.* Austin, Tex.: Education Service Center, Region XIII, 1975.

Stone, S. C., & Shertzer, B. *Guidance Monograph Series V: Guidance and the needs of the exceptional students.* New York: Houghton Mifflin, 1970.

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The Council for Exceptional Children. *A free appropriate public education for all handicapped children.* Reston, Va.: Author, 1976.

The Council for Exceptional Children. *All together now.* Reston, Va.: Author, 1974.

University of Northern Colorado. *Handicapped children in the regular classroom.* Greeley: Author, 1974.

Wallace, G., & Kauffman, J. M. *Teaching children with learning problems.* Columbus: Charles E. Merrill, 1973.

Warfield, G. J. *Mainstreaming currents.* Arlington, Va.: Council for Exceptional Children, 1974.

Watson, M. *Mainstreaming the educable mentally retarded.* Washington, D. C.: National Education Association, 1975.

What is a handicap? Series. Santa Monica, Cal.: BFA Educational Media, CBS, 1975.

Wittmer, J., & Myrich, R. D. *Facilitative teaching.* Pacific Palisades, Cal.: Goodyear, 1974.

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